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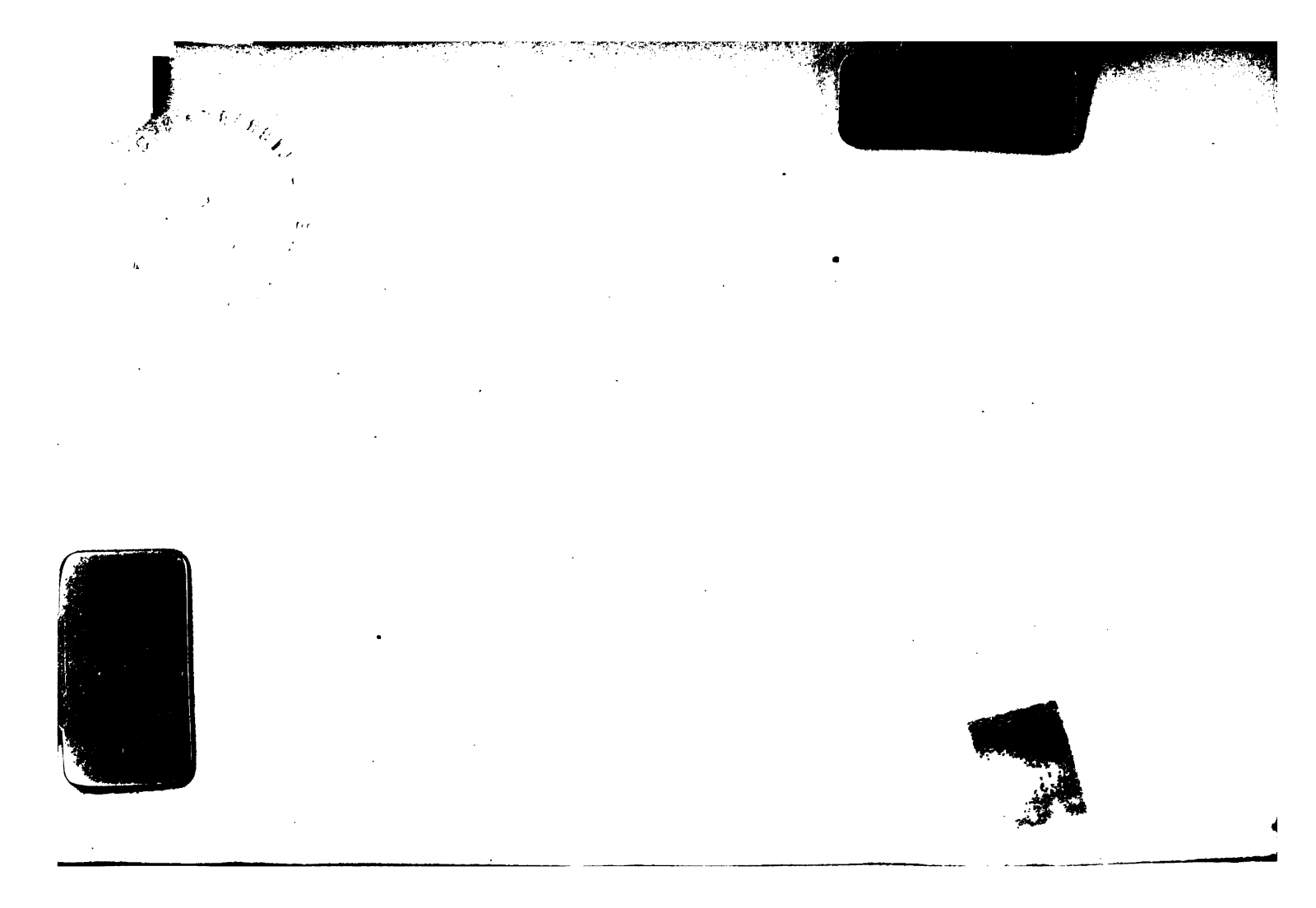

TOKIO DAIGAKU.

(UNIVERSITY OF TOKIO).

THE

CALENDAR

OF THE

DEPARTMENTS OF LAW, SCIENCE, AND LITERATURE.

2541-42 (1881-82).

PUBLISHED BY Z. P. MARUYA & Co.
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HISTORICAL SUMMARY.

In April of the tenth year of Meiji, Tokio Kaisei Gakko was united to Tokio Igakko (Medical College) to form Tokio Daigaku (University of Tokio) which was divided into the four Departments of Law, Science, Medicine, and Literature.

The Departments of Law, Science, and Literature were established in the former Kaisei Gakko, and the Department of Medicine in the former Igakko. Tokio Eigo Gakko (Tokio English Language School) was made Tokio Daigaku Yobimon (Preparatory School to the University of Tokio) and put under the control of the Departments of Law, Science, and Literature. Mr. Hiroyuki Kato, Sori of the former Kaisei Gakko, was appointed Sori (President) of the Departments of Law, Science, and Literature, in Tokio Daigaku; Mr. Arata Hamao, Vice Director of the former Kaisei-Gakko, was appointed Sori-Ho (Vice-President) of the same Departments of Law, Science, and Literature, and in addition to his duties as Vice-President was made Shukan (Principal) of Tokio Daigaku Yobimon. Mr. Ichizo Hattori, Director of the former Eigo Gakko, was appointed Shukan of Tokio Daigaku Yobimon, and immediately after, the office of Sori-Ho of the Departments of Law, Science, and Literature, was assigned to him in addition to his duties as Shukan. All instructors in the former Kaisei Gakko and Eigo Gakko became respectively professors in the Departments of Law, Science, and Literature, and teachers in the Yobimon.

On the 14th of April, Mombusho put Koishikawa-Sho-

kubutsuyen (Koishikawa Botanical Garden), which formerly belonged to the Educational Museum, under the control of Tokio Daigaku.

In June of the same year, a University Magazine, called Gakugei-Shirin, was first published, and it was determined that thereafter it should be continued monthly, collecting various opinions of learned men, either native or foreign.

From September of the same year, the modified and newly added courses of instruction were practically pursued.

In October, Toshokan (the University Library) was newly built.

On the 19th of December, certificates were given, with appropriate ceremony, to the three students who had completed the course of Chemistry at the Annual examination of the last academic year, and this was the first occasion of giving certificates to the students of the University.

In this year, Mr. Edward. S. Morse, Ph. D. of America, Professor of Zoölogy and Physiology in the Department of Science, discovered a shell-heap in Oimura, Yebaragori, in the province of Musashi. By digging out the shell-heap, he found there a great many fragments of ancient pottery, and human bones, as well as those of beasts. After this, discoveries of ancient pottery, &c., of a similar nature, were made in several places, namely, Koishikawa Botanical Garden; Otsukamura, Yashirogori, Higo; Okadaira; Shidagori, Hitachi; Hakodate, Ojima; Otaru, Shiribeshi, &c. They are all of great value to the science of Archæology as well as to that of Paleontology.

In May of the 11th year of Meiji, Mombusho modified the regulations, by which the duties of Sori are defined and enumerated, and thereby considerably extended the autho-

rity of the Sori.

On the 8th of July, certificates were given to the sixteen students, who had completed their respective courses, six being in Law, seven in Chemistry, and three in Civil Engineering. Thus the number of students, who had finished their special courses, exceeded by thirteen the number of those who received certificates in the previous year.

In September, Kanshotai (Observatory) was newly built at Motofuji-cho, Hongo.

In December, the power of granting degrees was vested in Tokio Daigaku by Mombusho. In early times the system of granting degrees to students existed, but had been abandoned for a long period. This re-establishment of the system of granting degrees is to be regarded as a remarkable event in the history of Japanese Education. Five distinct degrees were then established, namely, Hogakushi, Rigakushi, Igakushi, Bungakushi, and Seiyakushi.

On the 24th of the same month, certificates were given, with appropriate ceremony, to the five students who had completed the course of Physics in French.

In February of the 12th year of Meiji, it was decided to erect new buildings for the accommodation of the Departments of Law and Literature, on the ground of Mombusho, situated in Motofujicho, Hongo.

On the 4th of April, Mr. Ichizo Hattori, Vice-President, was appointed President of the Osaka Special College.

In May, the three students who had completed their respective courses, viz., Law, Chemistry, and Civil Engineering were sent to England, and one who had completed that of Physics, to France by Mombusho to continue their studies.

The 10th of July was the first occasion of conferring

degrees. Fifty five students who had finished their respective courses received them, and the ceremony was more elaborate than had been customary in giving certificates. The degree of Hōgakushi was conferred upon fifteen, and that of Rigakushi upon forty. On this occasion, Gen. Grant, Ex-President of the United States of America, who was then visiting this country, was present by invitation.

In September, the regulations of the terms and examinations were modified, and the rule for elective studies was added with the object of providing studies for those whose time does not allow them to follow a regular course.

On the 31st of March of the 13th year of Meiji, the name of Hakubutsujo (Museum) was given to the place for the collections of Mineralogical, Geological, and Biological specimens. This building stands on the ground of the Tokio Foreign Language School. The models and specimens pertaining to other branches of study, previously distributed among the lecture rooms and laboratories, were transferred to this Museum. Since July of the following year, it has been open every Sunday to the public.

On the 13th of April of the same year Mr. Arata Hamao, Vice-President, was appointed First Junior Secretary of Mombusho. On the 22nd of the same month, Mr. Hiroyuki Kato was promoted to the position of officer of the third rank in Mombusho, retaining the office of President, and on the 23rd, Mr. Ichizo Hattori, President of the Osaka Special College, was appointed Vice-President of the University, as well as Principal of the Preparatory School.

On the 3rd of June, Mr. Ichizo Hattori was appointed First Junior Secretary of Mombusho, retaining the former office of Vice-President of the University, as well as that of Principal of the Yobimon.

On the 10th of July, degrees were granted with appropriate ceremony to thirty eight students who had completed their respective courses. Hogakushi numbered six, Rigakushi twenty four, and Bungakushi eight. Among the Rigakushi were eight students who had completed the course of Physics in the French language. This course was established for the students of the polytechnic course in French, when the latter was abolished in August of the 8th year of Meiji. The French course in Physics was also abolished on the graduation of the eight remaining students above mentioned.

In September, the single course of Geology and Mining was divided into two separate courses, viz., that of Geology and that of Mining and Metallurgy. This change was thought expedient because the subjects pursued in these two courses are identical in only a few cases, and in these few the instruction varies according to the necessity of each course.

In the same month, according to the suggestion of Professor Mendenhall, in order to measure the velocity of sound under different conditions, an application was made to the government for permission to use at specified times the noon day cannon in the castle grounds. This permission was granted on the 25th of December. These Experiments were conducted in the following year.

In October, the two students who had received the degree of Rigakushi were sent by Mombusho, one to Germany to pursue Geology, and the other to France to pursue Physics, and one, who had received the degree of Bungakushi, to England to pursue Political Economy.

On the 15th of June of the 14th year of Meiji, a change was made in the Organization of Tokio Daigaku whereby

the four Departments of Law, Science, Medicine, and Literature, and also Tokio Daigaku Yobimon (Preparatory School) were all put under the control of the Sori. Each Department has its Cho (Dean), and in Tokio Daigaku there are Kioju (Professors), Jo-Kioju (Assistant Professors), and Shoki (Secretaries). In the Preparatory School there are Cho (Director), Kioyu (Teachers), Jo-Kioyu (Assistant Teachers) and Shoki.

On the 6th of July, Mr. Hiroyuki Kato was appointed Sori of Tokio Daigaku, and on the 7th, Mr. Kensai Ikeda was appointed Sori-Kokoroye.

On the 9th of the same month, degrees were conferred upon sixty eight students who had completed the respective courses in the Departments of Law, Science, Medicine, and Literature. Hogakushi numbered eight, Rigakushi seventeen, Igakushi twenty eight, Seiyakushi nine, and Bungakushi six. On this occasion the Imperial Princes, Ministers of the several Departments of the Government, and many other officials and gentlemen were present.

On the 11th of the same month Mr. Tadanori Ishiguro was appointed to act as assistant to the Sori. On the 14th, Mr. Ichizo Hattori was appointed Cho of the Department of Law, and also of the Yobimon (Preparatory School); Messrs Dairoku Kikuchi, Hiizu Miyake and Masakazu Toyama were appointed Kioju of Tokio Daigaku, and also respectively Cho of the Departments of Science, Medicine, and Literature. Above forty Kioju and Jo-Kioju were appointed at this time, besides many Kioyu and Jo-Kioyu. On the 23rd of the same month, Mr. Ichizo Hattori was appointed to act as assistant to the Sori, retaining his former offices.

In September, the regulation concerning the study of French and German was modified. Students in the Departments of Science and Literature are accordingly required to study German instead of choosing between French and German. This change has been made in order to enable students to pursue their studies or professions in future to the best advantage, since it is believed that Germany is the country where the Sciences here pursued have reached the highest comparative development. The students in these Departments, however, together with the Law students, may study French if they have sufficient time to do so. The course of Mathematics, Physics, and Astronomy, in the Department of Science, has been divided into three distinct courses and the course of Philosophy, Political Philosophy, and Political Economy, in the Department of Literature has been divided with some modifications, into two courses, viz., that of Philosophy, and that of Political Science and Economy.

On the 2nd of January of the 15th year of Meiji, the office of Kanji of Tokio Daigaku (for the management of University Affairs under the Soki) was created, with rank next to that of the Sori.

On the 4th of February, two students who had received the degree of Rigakushi were sent by Mombusho, one to Germany to pursue Zoölogy and the other to England to pursue Mechanical Engineering; those who had received the degree of Igakushi, were sent to Germany to pursue respectively Psychiatry, Pathology and Pathological Anatomy, Materia Medica and Medical Jurisprudence; and one who had received the degree of Bungakushi, to Germany to pursue Political Science.

On the 13th of the same month, Kanshotai was divided into Tenshotai (Astronomical Observatory), and Kishotai (Meteorological Observatory). On the 15th, Mr. Ichizo Hattori was appointed Kanji of Tokio Daigaku; Mr. Nobushige Hozumi was appointed Kioju of Tokio Daigaku and also Cho of the Department of Law; and Mr. Shigetake Sugiura was appointed Cho of the Preparatory School.

I. CALENDAR.

2541–42 (1881—82).

2541.—September	11.	First Term begins.
,,	23.	Holiday; Shiuki Korei Sai.
October	17.	Holiday; Kanname Matsuri.
November	3.	Holiday; Tencho Setsu.
,,	23.	Holiday; Niiname Matsuri.
December	24.	First Term ends.
,,	25.	Winter Vacation begins.
2542.—January	7.	,, ,, ends.
,,	8.	Second Term begins.
,,	30.	Holiday; Komei Tenno Sai.
February	11.	Holiday; Kigen Setsu.
March	20.	Holiday; Shunki Korei Sai.
,,	31.	Second Term ends.
April	1.	Spring Vacation begins.
,,	7.	,, ,, ends.
,,	8.	Third Term begins.
June	17.	Term Work terminates.
,,	21.	Annual Examinations begin.
July	10.	Third Term ends.
,,	11.	Summer Vacation begins.
September	10.	,, ,, ends.

II. ORGANIZATION.*

1.—The Departments of Law, Science, and Literature, with the Department of Medicine, form Tokio Daigaku (University of Tokio), and provide special courses of instruction in Law in the Department of Law; in Chemistry, Mathematics, Physics, Astronomy, Biology, Engineering, Geology, and Mining and Metallurgy, in the Department of Science; and in Philosophy, Political Science and Political Economy, and Japanese and Chinese Literature in the Department of Literature.

2.—Tokio Daigaku Yobimon, which belongs to Tokio Daigaku and is under the control of the Departments of Law, Science, and Literature, is designed to provide a general course of education, and to serve as a Preparatory School to these Departments.

III. COURSES OF INSTRUCTION.

1.—All the courses in the Departments of Law, Science, and Literature extend through four years, and there are four corresponding grades of students.

2.—In the Department of Law, the students all pursue the same course. In the Department of Science, eight courses have been established, and in the Department of Literature, three courses. The students in the Departments of Literature and Science pursue one course respectively, which they may elect.

3.—The intention is ultimately to use the Japanese language in all the Departments, but, for the present, in-

* Detailed imformations of the Department of Medicine and of the Yobimon are given in their own calendars.

struction is given in the English language. The students are also taught the French language in the Department of Law, and the German language in the Department of Science and Literature, except the students of Japanese and Chinese Literature.

4.—The courses in the Departments, with the subjects comprised in each, are as follow:

DEPARTMENT OF LAW.

The object of this Department is to teach the law of this country and also the important parts of English and French Law.

First Year.

		Hrs. per week.
Japanese Literature	...1 year	2
Chinese Literature with Essays	...1 year	4
History	...1 year	3
English Literature with Essays	...1 year	4
Logic	...1 year	2
Encyclopaedia of Laws	...1 year	2
French	...1 year	3

Second Year.

Ancient Japanese Law	...1 year	2
Present Japanese Law—Criminal Law	...1 year	2
English Law—Introductory Lectures, Real Property; Contracts; Crimes; Torts	...1 year	8

		Hrs. per week.
English Constitution	1 term	3
French	1 year	3

THIRD YEAR.

Ancient Japanese Law—Taihorei	1 year	1
Present Japanese Law—Criminal Proceedings; Moot Court Exercises	1 year	3
English Law—Agency; Evidence; Procedure; Maritime Law; Equity; Partnership; Sales; Law of Negociable Instruments; Family Relations; Moot Court Exercises	1 year	10
French Law—Criminal Law	1 year	3

FOURTH YEAR.

Ancient Japanese Law	1 year	1
Present Japanese Law—Criminal Proceedings; Moot Court Exercises	1 year	3
English Law—Marine Insurance; Moot Court Exercises	1 year	2
International Law—Public International Law; Private International Law	1 year	3
Jurisprudence	1 year	3
French Law—Civil Law	1 year	3
Graduating Thesis—in Japanese, Chinese or English.		

DEPARTMENT OF SCIENCE.

The eight courses established in this Department are as follow:

1. Chemistry.
2. Mathematics.
3. Physics.
4. Astronomy.
5. Biology.
6. Engineering.
7. Geology.
8. Mining and Metallurgy.

These courses are all identical during the first year, but for the last three years each student is required to elect one of the courses, and pursue it as his special study.

FIRST YEAR—ALL THE COURSES.

		Hrs. per week.
Mathematics—Analytical Geometry ...	...1 year	4
Elementary Mechanics...	...2 terms	2
Astronomy—Outlines	...1 term	3
Chemistry—Inorganic; with Laboratory Practice	...1 year	4
Elementary Mineralogy	...½ year	2
Elementary Geology	...½ year	2
Drawing—Geometrical...	...1 year	2
Logic	...1 year	2
English	...1 year	4

I.—CHEMISTRY.

SECOND YEAR.

Analytical Chemistry—Qualitative Analysis	1 year	12
Organic Chemistry	...1 year	2

		Hrs. per week.
Physics	...1 year	4
Mineralogy	...1 year	2
Blowpipe Analysis	...1 year	3
English	...1 year	2
German	...1 year	2

THIRD YEAR.

Analytical Chemistry—Quantitative Analysis	1 year	12
Chemical Technology	...1 year	9
Metallurgy	...1 year	4
Physics	...1 year	3
German	...1 year	2

FOURTH YEAR.

Analytical Chemistry—Quantitative Analysis; Assaying	...1 year	21
Chemical Technology	...1 year	9
Graduating Thesis—in Japanese, Chinese, or English.		

II.—MATHEMATICS.

SECOND YEAR.

Pure Mathematics	...1 year	9
Applied Mathematics—Mechanics ...	...1 year	4
Astronomy—Theory and Practice ...	...1 term	3
Physics	...1 year	6

		Hrs. per week.
English	...1 year	2
German	...1 year	2

THIRD YEAR.

Pure Mathematics...	...1 year	5
Applied Mathematics	...1 year	4
Astronomy—Theory	...1 year	3
Physics	...1 year	6
German	...1 year	2

FOURTH YEAR.

Pure Mathematics...	...1 year	5
Applied Mathematics	...1 year	5
Astronomy—Theory	...1 year	3

Graduating Thesis—in Japanese, Chinese, or English.

III.—PHYSICS.

SECOND YEAR.

Pure Mathematics...	...1 year	5
Mechanics	...1 year	4
Physics	...1 year	6
Analytical Chemistry	...1 year	3
English	...1 year	2
German	...1 year	2

Third Year.

		Hrs. per week.
Pure Mathematics	1 year	8
Applied Mathematics	1 year	4
Physics	1 year	6
Analytical Chemistry	1 year	4
German	1 year	2

Fourth Year.

Applied Mathematics	1 year	5
Physics	1 year	8
Astronomy—Practice	1 year	3

Graduating Thesis—in Japanese, Chinese, or English.

IV.—ASTRONOMY.

Second Year.

Theoretical Astronomy	1 year	3
Practical Astronomy	1 year	3
Pure Mathematics	1 year	9
Physics	1 year	6
Mechanics	1 year	4
English	1 year	2
German	1 year	2

Third Year.

Theoretical Astronomy	1 year	3
Practical Astronomy	1 year	3

		Hrs. per week.
Pure Mathematics...	...1 year	3
Applied Mathematics	...1 year	4
Physics	...1 year	6
German	...1 year	2

FOURTH YEAR.

Theoretical Astronomy...	...1 year	3
Practical Astronomy	...1 year	3
Pure Mathematics...	...1 year	5
Applied Mathematics	...1 year	5

Graduating Thesis—in Japanese, Chinese, or English.

V.—BIOLOGY.

In the fourth, or last, year of this course, the student, is required to pursue one subject, either Zoölogy or Botany, as his special study according to his own choice.

SECOND YEAR.

		Hrs. per week.
Zoölogy	...1 year	8
Botany	...1 year	8
Physiological Chemistry	...½ year	2
English	...1 year	2
German	...1 year	2
Latin	...1 year	2

THIRD YEAR.

		Hrs. per week.
Zoölogy	...1 year	10
Botany	...1 year	10
Paleontology	...1 year	2
Physiology	...1 year	3
German	...1 year	2

FOURTH YEAR.

Zoölogy	...1 year	36
Botany	...1 year	20
Graduating Thesis—in Japanese, Chinese, or English.		

VI.—ENGINEERING.

In the fourth, or last, year of this course, the student is required to pursue one subject, either Mechanical Engineering or Civil Engineering, as his special study according to his own choice.

SECOND YEAR.

		Hrs. per week.
Mathematics	...1 year	5
Mechanics	...1 year	4
Strength of Materials	...1 term	2
Land Surveying—Lectures; Field and Office Practice	...1 year	4
Physics	...1 year	4

		Hrs. per week.
Mechanical Drawing	...1 year	4
English	...1 year	2
German	...1 year	2

THIRD YEAR.

Thermodynamics and the Steam-Engine	...1 year	2
Theory of Structures	...1 year	2
Mechanism	...1 year	2
Road and Railway Surveying and Construction	...1 year	6
Physics	...1 year	3
Mechanical Drawing	...1 year	4
German	...1 year	2

FOURTH YEAR.

Mechanical Engineering—Machine Design with Practice in making Working Drawings; Experimental Work; Workshop Practice. Graduating Thesis—in Japanese, Chinese, or English.		
Civil Engineering—Bridge Construction; Geodesy—Lectures, Field and Office Practice; Marine Surveying; Hydraulic Engineering	...1 year	12
Architecture	...2 terms	3
Technical Geology	...1 year	1
Graduating Thesis—in Japanese, Chinese, or English.		

VII.—GEOLOGY.

Second Year.

		Hrs. per week.
Historical Geology	1 year	2
Mineralogy	1 year	2
Determinative Mineralogy	1 year	1
Qualitative Analysis	1 year	5
Qualitative Blowpipe Analysis	1 year	2
Mining	1 year	3
Land Surveying and Topographical Drawing	1 year	4
Zoölogy	1 year	2
Botany	1 year	2
Geological Excursions.		
English	1 year	2
German	1 year	2

Third Year.

Paleontology	1 year	2
Practice in Determining Rocks	1 year	1
Practice in Determining Fossils	1 year	2
Geological Surveying and Dynamical Geology	1 year	2
Lithology	1 year	1
Quantitative Analysis	1 year	10
Geological Excursions.		
German	1 year	2

Fourth Year.

Practice in Determining Rocks	1 year	2
Practice in Determining Fossils	1 year	3

		Hrs. per week.
Microscopy of Rocks and Minerals—Lectures and Practice	1 year	3
Geological Surveying and Surface Geology	1 year	3
Technical Geology...	1 year	1
Geological Excursions.		
Graduating Thesis—in Japanese, Chinese, or English.		

VIII.—MINING AND METALLURGY.

Second Year.

Mining	1 year	3
Mineralogy	1 year	2
Lithology	1 year	1
Land Surveying	1 year	4
Applied Mechanics	1 year	3
Determinative Mineralogy	1 year	1
Qualitative Analysis	1 year	8
Mechanical Drawing	1 year	2
English	1 year	2
German	1 year	2

Third Year.

Metallurgy	1 year	4
Qualitative Blowpipe Analysis	2 terms 1 term	3 4
Dressing of Ores	1 year	2
Quantitative Analysis	1 year	10
Mechanical Drawing	1 year	2

		Hrs. per week.
Historical Geology...	...1 year	2
Practical Work at Mines.		
German...	...1 year	2

FOURTH YEAR.

Assaying...	...1 year	5
Underground Surveying	...1 term	1
Quantitative Blowpipe Analysis	...1 year	3
Practice in Designing	...1 year	4
Dressing and Metallurgical Experiments	...1 year	4
Technical Geology...	...1 year	1
Architecture	...2 terms	3
Practice in Underground Surveying.		
Visiting Mines.		
Graduating Thesis—in Japanese, Chinese, or English.		

DEPARTMENT OF LITERATURE.

The three courses established in this Department are as follow :

1. Philosophy.
2. Political Science and Political Economy.
3. Japanese and Chinese Literature.

The first two courses are identical during the first year, but for the last three years each student is required to elect one of the courses, and to pursue as his special studies those of the course chosen.

The last course is not identical with the above two courses even in the first year and therefore the student at the beginning is required to decide whether he will pursue this course.

FIRST YEAR.

		Hrs. per week.
Japanese Literature	...1 year	2
Chinese Literature with Essays	...1 year	4
History	...1 year	3
English Literature with Essays	...1 year	4
Logic	...1 year	2
Encyclopaedia of Laws	...1 year	2
German *	...1 year	3

I.—PHILOSOPHY.

SECOND YEAR.

Philosophy—History of Philosophy; Sociology; Psychology	...1 year	6
History—Philosophy of History	...1 year	3
Japanese Literature	...1 year	2
Chinese Literature with Essays	...1 year	4
English Literature—History of the Literature; Essays and Criticisms	...1 year	3
German	...1 year	3

THIRD YEAR.

Philosophy—Modern Philosophy; Hindoo and Chinese Philosophy	...1 year	7

* First two courses only.

		Hrs. per week.
Physiology	...1 year	3
Japanese Literature	...1 year	2
Chinese Literature with Essays	...1 year	3
English Literature—Essays and Criticisms	1 year	3
German	...1 year	3

FOURTH YEAR.

Philosophy—Psychology; Moral Philosophy; Aesthetic Philosophy; Hindoo and Chinese Philosophy...	...1 year	10
Essays—in Chinese	...1 year	twice per month
Graduating Thesis in Japanese, Chinese, or English.		

II.—POLITICAL SCIENCE AND POLITICAL ECONOMY.

SECOND YEAR.

Political Economy...	...1 year	4
History—Philosophy of History	...1 year	3
Japanese Literature	...1 year	2
Chinese Literature...	...1 year	4
English Literature—History of the Literature; Essays and Criticisms	...1 year	3
German	...1 year	3

THIRD YEAR.

Political Science—Political Science; Administrative Law; Ancient and Modern Japanese Law	...1 year	4

	Hrs. per week.
Political Economy—Political Economy; Japanese Finance ... ...1 year	4
Public International Law ... ...2 terms	3
Japanese Literature ... ...1 year	2
Chinese Literature with Essays ... ...1 year	4
German ... ...1 year	3

FOURTH YEAR.

Political Science—Administrative Law; Ancient and Modern Japanese Law ...1 year	4
Political Economy—Political Economy; Japanese Finance ... ...1 year	4
Jurisprudence... ... ...1 year	3
Essays—in Chinese ... ...1 year twice per month	
Graduating Thesis—in Japanese, Chinese, or English.	

III.—JAPANESE AND CHINESE LITERATURE.

SECOND YEAR.

Japanese Literature with Essays... ... ...1 year	5
Chinese Literature with Essays ... ...1 year	7
History—Philosophy of History ... ...1 year	3
Philosophy—History of Philosophy; Sociology; Psychology... ... ...1 year	6

THIRD YEAR.

Japanese Literature with Essays... ... ...1 year	5
Chinese Literature with Essays ... ...1 year	8

		Hrs. pe week.
Philosophy—Modern Philosophy; Hindoo and Chinese Philosophy ... ...1 year		7

FOURTH YEAR.

Japanese Literature with Essays ... ...1 year		5
Chinese Literature with Essays ... ...1 year		8
Philosophy—Moral Philosophy; Aesthetic Philosophy; Hindoo and Chinese Philosophy ... ...1 year		7
Graduating Thesis—Both in Japanese, and Chinese.		

IV. DETAILED STATEMENTS OF THE COURSES OF INSTRUCTION.

ANCIENT JAPANESE LAW.

During the first year, brief lectures upon Ancient and Modern Japanese Law are given to the students in the Departments of Law and Literature; and Seidotsun is used as a text-book. Students of Law take up Kempo-shirio, Joyeishikimoku and Hiakkajo in their second year; Taihorei, in their third year, and Hososhiyosho in their fourth year.

For extra reading, the following books are selected, those selected for the first year being omitted.

2nd year:—Ruiju-Sandai-Kiaku; Seiji-Yōrioku; Shoku-Nihongi.

3rd year:—Risso-zampen; Riō-no-Shinge; Shoku-genshō.

4th year:—Kembu-Shikimoku; Kingioku-Shōchiu-shō; Saiban-Shiyōshō; Yengishiki.

PRESENT JAPANESE LAW.

Lectures on Criminal Law are given in the second year of the Law Course and on Criminal Proceedings during the third and fourth years.

The instructor conducts Moot Courts with the third and fourth year classes in Law. On each case students are appointed counsel in turn; a written statement of the facts of the case is given to them, and they are required to draw the proper pleadings as in an actual suit, the question submitted being generally one involved in the cases decided by one of the courts.

ENGLISH LAW.

Instruction is given either by means of lectures or by reference to text-books, whenever books suitable for the use of Japanese students can be had. In the latter case portions to be studied in advance are assigned, and the Instructor explains, comments, and questions the students upon, the portion so assigned.

The following are the text-books now in use:—

Elementary Law. Blackstone's or Broom and Hadley's Commentaries; Terry's First Principles of Law.

Constitutional Law. Amos' English Constitution; Taswell Langmead's English Constitution.

Contracts. Smith on Contracts; Pollock on Contracts Langdell's Select Cases on Contracts.

Real Property. Blackstone's Commentaries; Williams on Real Property.

Crimes. Bishop's Commentaries on the Criminal Law; Stephen's Digest of Criminal Law; Harris' Principles of Criminal Law.

Torts. Broom's Commentaries; Underhill's Torts.

Sales. Langdell's Select Cases on Sales; Smith's Mercantile Law.

Equity. Hayne's Outlines of Equity; Snell's Principles of Equity.

Evidence. Stephen's Digest of the Law of Evidence; Powell's Evidence; Best on Evidence.

Private International Law. Wharton's Conflict of Laws.

Public International Law. Wheaton's International Law; Woolsey's International Law.

Jurisprudence. Austin's Jurisprudence; Maine's Ancient Law; Bentham's Theory of Legislation.

FRENCH LAW.

For instruction in the French Law, students are taught Civil Law during the third and fourth years by reference to the French Codes.

INORGANIC CHEMISTRY.

During the first year the student in the Department of Science attends lectures on Inorganic Chemistry; he is also instructed in making a series of experiments in order to make himself practically acquainted with the preparation and properties of the most important gases, acids, bases, salts, &c. concerning which he has learned in the lecture-room.

The subjects of this course are treated in the following order:

I. NON-METALLIC ELEMENTS.

Oxygen. Theory of Combustion. Hydrogen. Nitrogen. Composition of the Atmosphere. Carbon, Chlorine, Bromine, Iodine, Fluorine, Sulphur, Selenium, Tellurium. Phosphorus, Boron, Silicon. These non-metallic elements and their chief compounds are studied in relation to their production, properties, and decomposition. The proportions by weight and by volume in which they combine are also fully explained and illustrated in connection with the atomic theory.

II. METALS.

The extraction and properties of the chief metals, and their industrial applications. The study of their most important salts, and their characteristic reactions. Theory of the constitution of salts. Relation between the chemical and physical properties of elementary and compound bodies. Determination of the atomic weights. Time allowing, the preparation and properties of the rare metals, and their characteristic reactions will also be studied.

Books of reference: Gill's chemistry for Schools; Roscoe's Lessons in Elementary Chemistry; Williamson's Chemistry for Students; Miller's Elements of Chemistry; Roscoe and Schorlemmer's Elementary Treatise on Chemistry; Watt's Dictionary of Chemistry.

ANALYTICAL CHEMISTRY.

During the second year the student works at Qualitative Analysis in the chemical laboratory, commencing with

the analyses of simple salts and proceeding to more complex mixtures as he becomes more experienced. Subsequently, alloys, minerals, mineral waters, as well as industrial products, will be given for analysis. Detection of metallic and other poisons in organic mixtures will also form a part of the work. If time permits, after having studied the reactions of the more important organic alcohols, acids, and bases, he is permitted to prepare pure specimens of various organic products.

In the third and fourth years the student in the course of chemistry devotes himself to the quantitative analysis of mineral and organic substances. Commencing with simple salts, he passes on to the analysis of alloys and afterwards to natural minerals and ores of more complex composition. The analysis of industrial products by gravimetric and volumetric methods is also taken up in the third year. During the first half of the fourth year, the student is mainly occupied with ultimate and proximate organic analysis, while the remaining half is devoted to the experimental investigation of some subject which he has selected for the graduating thesis.

The following is the list of analyses executed by the student.

	Names of substances.	Constituents to be determined.
1.	Baric chloride.	Ba, Cl, H_2 O.
2.	Magnesic sulphate.	MgO, S O_3 , H_2 O.
3.	Potassium alum.	K_2 O, Al_2 O_3 SO_3 , H_2 O.
4.	Hydrodisodic phosphate.	Na_2 O, P_2 O_5 , H_2 O.
5.	Ammonio ferrous sulphate.	H_3 N, Fe O, SO_3 .
6.	Alloy containing tin, silver and copper.	Su, Ag, Cu.

7. Alloy containing tin, lead, and zinc.	Su, Pb, Zu.
8. Dolomite.	SiO_2, Al_2O_3 + Fe_2O_3, Ca O, Mg O, Co_2.
9. Felspar.	SiO_2, Al_2O_3, Fe O, Ca O, K_2O, Na_2O.
10. Copper ore.	Cu.
11. Coal.	H_2O, volatile matter, fixed carbon, S, ash.
12. Alkalimetry.	Soda ash, pearl ash.
13. Acidimetry.	Vinegar, hydrochloric acid.
14. Chlorimetry.	Bleaching powder.
15. Manganese ore.	MnO_2.
16. Iron Ore.	SiO_2, Fe, S, P,
17. Iron Slag.	SiO_2, Fe O, Al_2O_3, Mn O, Ca O, Mg O. S, P_2O_5.
18. Cast iron.	Fe, Mn, Graphite, Combined C, Si, S, P,
19. Type metal.	Sn, Pb, Sb, Fe.
20. German silver.	Cu, Zn, Ni, Fe.
21. Fahl ore.	Sb, As, Cu, Pb, Zn, Fe, Al_2O_3, Ca O, Mg O. S, SiO_2, Co_2.
22. Raw sugar.	Water, crystallizable cane sugar, glucose, ash.
23. Petroleum.	Fractional distillation, specific gravities, flash test.
24. Saké.	Alcohol, glucose, volatile and non-volatile acids, total solid, ash, specific gravity.
25. Rice.	H_2O, fat, gum, cane sugar, glucose, starch, albuminoids, cellulose, ash.

26. Milk.	Water, butter, sugar, casein, ash, specific gravity.
27. Water.	Total solids, Cl, organic and volatile matter, free and albuminoid ammonias, hardness.
28. Vapor density.	
29. Chofun.	H_2O, volatile and organic matter, $Ca_3(PO_4)_2$, H_3N, ash.
30. Organic Solid Compound.	C, H, O.
31. ,, liquid ,,	C, H, O.
32. ,, solid ,,	N (by Varrentrapp and Will's method)

The third year students of three other courses, viz. those of Mining, Geology, and Physics, also receive instruction in quantitative analysis; but as the time which they can devote to this subject is limited, those substances which are more appropriate for their respective studies are selected for them from the above list.

The text books in use are Thorpe's Qualitative Analysis, Fresenius' Qualitative Analysis, Jones' Practical Chemistry, Cairns' Quantitative Analysis, Thorpe's Quantitative Chemical Analysis, Fresenius' Quantitative Analysis, Wanklyn's Water Analysis, Sutton's Volumetric Analysis.

ORGANIC CHEMISTRY.

During the second year, the student of the chemical course is instructed in Organic Chemistry by lectures which are given twice a week.

Synopsis of Lectures.

Introduction. Chemical nature of carbon. Constitution of the carbon compounds. Organic analysis. Determination of the vapor density. Determination of the molecular formula. Empyrical, rational, and constitutional formulae. Isomerism Physical properties. Classification, Action of reagents on carbon compounds.

1. Group of cyanogen and carbonyl compounds.
   cyanogen. Simple and complex cyanides.
   cyanates and thiocyanates.
   carbon monoxide. carbon dioxide. carbamide. carbon disulphide. Sulphocarbamide.
2. Group of the Fatty compounds.
   Paraffins.
   Primary alcohols, aldehydes, and acids.
   Secondary alcohols, and ketones.
   Tertiary alcohols.
   Methyl alcohol. Its derivatives.
   Formaldehyde. Formic acid.
   Ethyl alcohol. Vinous fermentation. Wine. Beer. Saké. Spirits. Ethyl cyanides. Nitrogen bases. Ethyl mercaptan. Metallic compounds of ethyl.
   Ethane and its substitution compounds.
   Acetaldehyde. Acetic acid. Substitution compounds of acetic acid.
   Fulminates.
   Propyl compounds. Butyl compounds. Amyl compounds. Higher homologues. Solid fatty acids. Natural wax.
   Olefines. Glycols. Monobasic and dibasic acids derived from glycols.
   Ethene compounds. Ethidene compounds.

Glycollic acid. Oxalic acid.
Propene compounds. Lactic acid.
Butene compounds. Succinic acid.
Malic acid.
Tartaric acid. Racemic acid and levotartaric acid.
Citric acid. Deoxalic acid.
Uric acid and its derivatives.
Glycerin. Fats. Allyl compounds.
Acetylene and its homologues.
Erythrite. Mannite.
Carbohydrates.
Terpenes and camphors.

3. Group of the aromatic compounds.
   General characters of the aromatic compounds.
   Benzene. Its derivatives. Azo-and diazo-compounds.
   Phenol. Dioxybenzenes. Trioxy benzenes.
   Toluene. Benzyl group. Benzoic acid.
   Salicylic acid. Phthalic acid.
   Aniline colors. Phenol colors.
   Indigo group.
   Naphthalene group.
   Anthracene. Anthraquinone. Alizarine.
4. Group of the glucosides.
5. Group of the alkaloids.
6. Group of unclassified substances.
   Coloring and bitter principles.
   Albuminoids.
   Animal products.

Works for reference. Fownes' Elementary Chemistry. Schorlemmer's Chemistry of carbon Compounds. Miller's Organic Chemistry (5th Edition).

CHEMICAL TECHNOLOGY.

The lectures on this subject are given three times a week, during the third and fourth year of the special course in chemistry. To complete the instruction, practical work is done by the students, also three times a week, during the afternoon hours, in a special laboratory. This, at present, has only temporary fittings which will be rendered more complete in the course of the year. The object of the practical work is to render the students more familiar with the reactions, the practical difficulties, etc, of the various branches of chemical technology, as well as with the methods of technical examination of new materials or products, partly made by the students themselves. It is also the intention to form a collection of manufactured articles to be used partly for illustrating the lectures, partly as patterns, or as objects of examination in the technical laboratory. Whenever it is possible, manufacturing places are visited to show the products described in the lectures.

The subjects treated are the following:

Technology of metals; alloys, ornamentations of metals, etc.
Galvanoplastic and electroplating.
Metallic compounds, mineral pigments, &c.
Potash, Saltpeter.
Gunpowder, and other explosives.
Sodium chloride.
Sulphur.
Sulphuric acid, nitric acid.
Sodium sulphate, Carbonate, etc.
Hydrochloric acid, chlorine, bleaching powder.
Ammonium compounds.

Aluminium compounds.
Ceramics.
Glassmaking.
Gypsum, mortar, cement.
Paper making.
Starch, dextrine.
Sugar.
Industries based on fermentation.
Bread making.
Vinegar.
Oils and varnishes.
Soap making.
Leather.
Glues.
Matches.
Dyeing and Printing.
Materials for illuminating purposes.
Materials for combustion.

PURE AND APPLIED MATHEMATICS.

1*st year* :—In Pure Mathematics, the subject taught is Plane Analytical Geometry, as much as is contained in Chapter I—X of Puckle's Conic Sections. Time allowing, Aldis' Solid Geometry is begun.

In Applied Mathematics, elementary Mechanics is taught during the first two terms; the text-book being Todhunter's Elementary Mechanics.

2*nd year* :—In Pure Mathematics, the subjects taught are Higher Plane and Spherical Trigonometry, Higher Analytical Geometry, Solid Geometry, Differential and Integral Calculus and Differential Equations; text-books

being Chauvenet's Trigonometry; Aldis' Solid Geometry; Salmon's Conic Sections; Todhunter's Differential Calculus; Todhunter's Integral Calculus; Boole's Differential Equations; constant reference being made to Williamson's works on Calculus, and Price's Infinitesimal Calculus.

In Applied Mathematics, Mechanics is taught mainly by lectures without reference to any particular text-book.

3rd year:—In Pure Mathematics, the higher parts of Algebra, Calculus and Analytical Geometry are taught, the chief text and reference books being Todhunter's Theory of Equations, Salmon's Higher Algebra; Salmon's Conic Sections; Salmon's Solid Geometry; Frost's Solid Geometry; Todhunter's Integral Calculus; Todhunter's Calculus of Variations &c.

In Applied Mathematics, Geometrical Optics is taught during the first term (the text-book being Parkinson's work); also Thermodynamics. During the second and third terms, Statics, Theory of Attractions, Undulatory Theory of Sound and of Light are gone through. Text and reference books, Todhunter's Statics; Todhunter's History of the Theory of Attractions; Airy's Tracts; L loyd on Light; Thomson & Tait's Natural Philosophy &c.

4th year:—In Pure Mathematics, Higher Calculus and Higher Differential Equations are the subjects of the lectures; text-books being Boole's Finite Differences; Todhunter's Functions of Laplace, Bessel and Lami; Boole's Differential Equations; Airy's Tracts. Also Modern Geometry and Quaternions will be lectured upon in the course of the session, together with a short review of Japanese Mathematics. Townshend's Modern Geometry and Kelland and Tait's Quaternions are the chief books employed.

In Applied Mathematics, Dynamics and Hydromechanics are the subjects taught; text-books being Tait and

Steele's Dynamics of Particles, Routh's Rigid Dynamics, and Besant's Hydromechanics. Also the mathematical theory of Electricity and Magnetism will be treated in an elementary way; the text-book being Cumming's Electricity.

Reference is made all through the course to other standard works and periodicals on these subjects.

PHYSICS.

Students from three different courses of the University spend more or less time in the Department of Physics. They are as follows ;—Course of Mathematics, Physics, and Astronomy ; that of Engineering ; and of Chemistry.

2nd Year:—Practice in simpler physical manipulations; the use of instruments of precision in measurements of length, mass, time, &c. The discussion of observations and results and their investigation by the method of least squares. The application of these principles in the experimental investigation of the simpler problems in mechanical physics. In the latter part of the year the subject of Heat is taken up.

3rd Year:—The principal work for this year is in Optics including Theoretical and Experimental. Geometrical Optics is studied this year in the Department of Mathematics, and Thermodynamics in that of Mechanical Engineering.

Students of Mathematics and Astronomy follow the same general course in their work in physics as the Special Students of Physics with the exception that less time is spent in Laboratory work.

Students of Engineering and Chemistry receive a limited amount of instruction in Physics during the second and third years of their course.

4th Year:—During this year students are principally occupied in the study of Electricity and Magnetism. In addition to the theoretical investigation of these subjects much time is given to laboratory practice in Electric and Magnetic Measurements, including their application to telegraph testing. In the course of this year each student is expected to undertake and carry out something in the way of an original research which is to be worked out in detail and made the subject of a graduating thesis.

Text-books and books of reference are Stewart's Elements of Physics; Deschanel's Physics; Kohlrausch's Physical Measurements; Ganot's Physics; Frick's Physical Technics; Pickering's Physical Manipulations; Airy's Sound; Stewart's Heat; Maxwell's Theory of Heat; Maxwell's Treatise on Electricity and Magnetism; Jenkin's Electricity and Magnetism; Cumming's Theory of Electricity; Lloyd's Magnetism; Airy's Magnetism; Airy's Undulatory Theory of Optics; Lloyd's Wave Theory of Light; Parkinson's Optics; Everett's Centimetre-gramme-second-System.

ASTRONOMY.

1st Year Science:—Lectures on elementary astronomy are given during the first term.

2nd Year:—Theoretical Astronomy—Elementary mathematical, and descriptive. Text-books, Loomis, Newcomb & Holden.

Practical Astronomy—Work with Transit, Zenith-telescope and Sextant; Determination of time and latitude, values of level-divisions and micrometer-screws. Text-books, Loomis and Chauvenet.

3rd Year :—Theoretical Astronomy—Rigorous methods fo reducing observations; Celestial Mechanics. Text-books, Chauvenet, Pontécoulant and Laplace.

Practical Astronomy—Observation and reduction of Equatorial work; Practice with Spectroscope and Photometers attached to Equatorial; Determination of latitude by prime-vertical-transit. Text-book, Chauvenet.

4th Year :—Theoretical Astronomy—Orbit work and perturbations. Text-books, Gauss, Bessel and Oppolzer.

Practical Astronomy—Observation and reduction of Meridian work; Determination of constant errors of Meridian Circle. Text-books, Bessel and Chauvenet.

BOTANY.

2nd Year Biology :—Lectures on Structural and Physiological Botany are given twice a week throughout the year. Instructions in the laboratory on the same subject also occupy the whole year. The student, moreover, practises the description and determination of species of Phanerogams. For these purposes specimens are brought daily from the Koishikawa Botanical Garden. Laboratory work in all occupies six hours a week.

2nd Year Geology :—In the first term to make the students familiar with the structure of plants and also with the natural system of classification, instruction is given in the 'analysis' of plants in the laboratory. During the whole of the second term and parts of the first and third term lectures are given on the Morphology and Physiology of plants and also on the Principles of Classification. In the third term instruction is again given in the labora-

tory on what has been learned by means of lectures in this and the preceding terms. The number of hours occupied thus is three in a week.

3rd Year Biology:—Lectures on Systematic and Economical Botany are given twice a week throughout the year, the last part of the second term and the whole of the third term being devoted to lectures on Cryptogams. Laboratory work occupies eight hours a week and consists chiefly in the study of Gramineæ and Cyperaceæ among Monocotyledons; and Lycopodiaceæ, Rhizocarpeæ, Ophioglossaceæ, Equisetaceæ, Filices, Musci, and Hepaticeæ among Cryptogams. Instruction is also given on Thallophytes, but more special study of this lowest division of the vegetable Kingdom is deferred to the next year.

4th Year Biology:—This class includes only those students who take up Botany as their specialty. Lectures are given on Geographical and Paleontological Botany, on Thallophytes and on advanced Physiology of Plants. Laboratory work is on the same subjects. The student is also required to make a special investigation of some single group of plants.

Books of reference:—Gray's Botanical Text-book; Balfour's Class Book of Botany; Sachs's Text-Book of Botany; Thomé's Structural and Physiological Botany; Henfrey's Elementary Course of Botany; De Candolle's Geographie Botanique; Lindley's Medical and Economical Botany; Berkeley's Cryptogamic Botany; Darwin's Climbing Plants; Darwin's Insectivorous Plants; Darwin's Effect of Cross and Self Fertilization in the Vegetable Kingdom; Siebold's Flora Japonica; Thunberg's Flora Japonica; Miquel's Prolusio Flora Japonica; Franchet et Savatiers's Enumeratio Plantarum; Suringer's Algæ

Japonicæ; Bentham's Flora Honkoensis; Blume's Museum Botanicum Lugduns Botavam; Mazimowicz' Primitæ Floræ Amurcusis; Gray's Manual of Botany; De Candolle's Regnum Vegetabilis; Bentham and Hooker's Genera Plantarum; Wight's Icones Plantarum Indiæ Orientalis; Blume's Flora Javæ; Trinius's Species Graminum; Boott's Illustrations of the Genus-Carex; Hooker's; Sinopsis Filicum; Mettenius's Filices Horti Botanici Lipsiensis; Hooker's British Flora; Sullivant's Musci and Hepaticæ of the United States; Berkeley's Hand-book of British Mosses; Cooke's Hand-book of British Fungi; Berkeley's British Fungology; Tulasne's Selecta Fungorum Carpologia; Agardh's Species Genera at ordines Algarum; Kutzing's Phycologia Generalis; Rabbenhorst's Flora Europæa Algarum; Harvey's Phycologia Britannica; Lindley and Hutton's Fossil Plants of Great Britain; Somoku Zusetsu; Honzo Zufu; Honzo Komoku Keimo; Kwa-i; Honzo-Komoku &c. &c.

ZOÖLOGY.

2*nd Year*:—Lectures on Comparative Anatomy of the Vertebrates, with laboratory practice, are given to the students in this year. The subjects include the Circulatory System with different methods of injecting; the Muscular System; the Digestive Apparatus; Osteology; the Urogenital System; the Nervous System; Instruction in the use of the Microscope.

3*rd Year*:—During this year lectures on Comparative Anatomy of the Invertebrates with laboratory practice are given. The subjects include Systematic Zoology; Dissecting of animals from each great class; Histological Study of the Organs of sense, and other organs.

4th Year:—Each student of this year is required to work in the laboratory, upon some subject for original investigation, either in comparative anatomy or embryology. Lectures are given in this year, concerning topics which bear on the special investigations being carried out by the students.

The students in the third and fourth year will meet weekly to make reports on original work, and bibliographical work.

2nd Year Geology:—The work of this class will be Systematic Zoology and Osteology. The principal classes of each great division of the animal kingdom will be taken in turn, and their anatomy and histology will be dealt with so far as this is necessary in order to give a correct notion of classification. Osteology will be one of the leading studies, as a preparation for paleontology.

TEXT BOOKS.

Claus. Grundzüge der Zoologie.
Gegenbaur. Grundriss der Vergleichenden Anatomie.
Huxley. Anatomy of the Vertebrates.
,, Anatomy of the Invertebrates.
Rolleston. Forms of Animal Life.
Balfour. Elements of Embryology.
,, Comparative Embryology.
Frey. Handbuch d. Histologie.
Nicholson. Zoology.
Morse. First Book of Zoology.

CIVIL ENGINEERING.

During the first two years of the course in Civil Engineering, the students pursue the same studies as the stu-

dents in Mechanical Engineering; at the beginning of the last year the classes are separated, and each takes up the study of its department.

Besides the general studies of each year, the students in Engineering take up the following studies in the department of Civil Engineering.

During the second year Land Surveying is treated fully, including the theory of the ordinary surveying instruments and their practical use, the operations of levelling, and the making of plats and topographical maps. As the time devoted to practice is ample, it is expected that each student will be thoroughly acquainted with all the operations which are commonly included under this head.

The third year is devoted to the study of the construction of roads and railways, and of the investigation of some of the materials used in civil engineering.

In railway engineering, the students study the methods of laying out straight lines and curves, levelling, drawing plans, cross-sections and profiles, and laying out and computing excavations and embankments. After practicing each of these separately, they apply the whole by making a reconnaissance, running the trial lines, and locating a line of railway some miles in length; and then making all the detailed drawings, calculations, and specifications, which would be required if the railway were to be built.

In road-building the students study the principal methods of building and repairing roads, streets, and pavements, devoting the greater part of the time to those which would be applicable in Japan. The class also devote some time to studying and experimenting on Limes, Mortars and Cements, and to investigating the strength of other materials which are used principally in Civil Engineering.

During the last year the students in Civil Engineering study Geodesy and Hydraulic Engineering, and make designs for engineering structures.

Geodesy is taught by lectures; and includes the measurement of base-lines, the selection of stations and the erection of signals, the measurement of angles, the reduction of a geodetical survey by the method of least squares; the determination of latitude, longitude, and azimuth, with practice in the observatory; the determination of the heights of stations, and geodetical levelling; and the construction of maps by various methods. It is found best to spend some time on the history of Geodesy.

In Hydraulic Engineering, the course includes a study of the mathematical theory of fluids, a discussion of the various formulæ for the velocity of water in rivers and conduits, the construction of canals, works for irrigation, sewerage and water-supply, the improvement of navigable rivers, the protection of the banks of rivers, and the construction of docks, piers, and harbors. The class practise hydrographic surveying by making a complete survey and chart of some part of one of the rivers in the city, or of a part of the harbor.

The designs, to which the students devote a large part of the year, include generally a wooden, a stone, and an iron bridge and several other subjects which each student is allowed to select. Each design is accompanied with complete calculations and specifications.

Before graduation each student is required to present a thesis on some subject in Civil Engineering, as a proof that he has such a degree of proficiency as entitles him to a diploma.

TEXT BOOKS & BOOKS OF REFERENCE.

2nd Year. Gillespie's Land Surveying.

3rd Year. Henck's Field-book for Railroad Engineers; Mahan's Civil Engineering; Gillmore's Limes, Mortars, and Cements; Vose's Manual for Railroad Engineers; Barry's Railway Appliances.

4th Year. Mahan's Civil Engineering; Rankin's Civil Engineering; Clarke's Geodesy; Merriman's Method of Least Squares; Loomis' Practical Astronomy; Becker's Bankunde des Ingénieurs; Vose's Manual for Railroad Engineers; Trautwine's Pocket-book for Engineers; Humber's Iron Bridge Construction; Kutter's Hydraulic Tables, by Jackson.

ARCHITECTURE.

The study of Architecture is pursued in the two departments of Civil Engineering and of Mining and Metallurgy, by means of lectures during the first and second terms of the fourth year. It is pursued, not as a separate and independent course, but as a supplementary study which is necessary for the thorough qualification of the students who graduate in these two departments; and, therefore, in the short time devoted to it, anything like a complete and satisfactory study of the subject is impossible. It is hoped, however, that the students will take advantage of these lectures and acquire such a knowledge of the subject as will enable them to distinguish between good and bad architecture, and to apply the artistic principles they learn to their own designs.

The study is divided into Practical and Theoretical Architecture. Under the first head, lectures are given on

Building Construction and Materials, and to obtain a clear understanding of the subject the students are taken through the process, step by step, of the erection of an ordinary building, from the laying of the foundation, up to the roofing. The interior finish is then considered, when various methods of ornamenting walls, &c, are also explained. The lectures that follow under this same head deal with the materials which are usually employed for building purposes, particular attention being paid to the manner of selecting the best specimens, the methods of preserving them, &c.

Under the second head, the artistic phase of the subject is considered, and as the best mode of understanding this, a brief history of Architecture, as it originated and developed in various European and other countries, is given. Thus, Indian, Egyptian, Grecian, Roman, Architecture, &c, are gone through, special attention being paid to those distinguishing features which characterise each, and cause them to form distinct schools or styles of Architecture.

As an introduction to the course of these last lectures, remarks are made with regard to the principles and elements of good Architecture, which are calculated to serve as a guide to the students both in themselves designing and in forming a critical estimate of the works of others.

MECHANICAL ENGINEERING.

In the second year there are two courses of lectures, (1) on Mechanics, (2) on the Strength of Materials.

(1) *Mechanics* :—

Fundamental and Derived Units. Maintenance of Units. Measurements. Notions of Mass, Velocity, Acceleration,

Force, &c,. Representation by Vectors. The Hodograph. Newton's Laws of Motion. Stress. Division into Kinematics, Kinetics, and Statics. Composition and Resolution of Forces. Moments. Couples. Distributed forces. Centre of gravity. Uniform and uniformly varying Stress. Moment of Inertia of a surface. Fluid Pressure. Hydrostatic Press, &c.. Equilibrium of Floating Bodies. Friction. Frictional Stability. Friction of Bands. Kinetics. Absolute measurement of Force. Work and Energy. Conservation of Energy. Momentum. Collisions. Rotation of a particle. Conical Pendulum. Simple Harmonic Motion. Simple Pendulum. Rotations of solid bodies. Properties of the Centre of Percussion. Compound Pendulum. Most general movement of any mass. D'Alembert's Principle. Reduction of Resistance and Inertia to a Driving Point.

Miscellaneous propositions in Kinematics. Instantaneous axis. Centroids. Composition of Rotations and Translations. Degrees of Freedom and Constraint. Straight line motion by Linkwork.

This course is attended by the students of the Physics, Mathematics, and Astronomy Section, as well as by the students of Engineering. Throughout this (as well as all the other courses in this department) numerous practical examples will be given in the class, and questions set for solution at home, so as to accustom the student to apply mechanical theory to engineering problems.

The students of the Mining section attend a different course of lectures in Mechanics which bear more directly upon their profession; the following is the syllabus:—

Applications of Statics and Dynamics to the Elasticity and Strength of Materials. Statics and Dynamics of Fluids. General Principles and Construction of Prime

Movers,—Overshot, Breast and Undershot wheels, Turbines, Water Pressure Engines, Wind mills, Steam Engines. Different Classes of Hand and Steam Pumps, and other Hydraulic Machinery.

(2) *Strength of Materials:*

Modes of production and preparation for use of the materials used in Engineering. Timber, its growth and conversion. Methods of seasoning and preserving. Iron. The Blast Furnace. Classification of Pig Iron. Puddling. Rolling Mills. Classification of Wrought Iron. Steel. Cementation process. Bessemer process. Siemens and other processes. Impurities of Iron and Steel. Hardening, tempering, and annealing. Other metals and alloys. Methods of founding in sand and loam. Chill-casting.

Tests of materials. Testing machines. Effects of continued, varied, and suddenly applied stress. Wöhler's experiments. Factor of safety. Hooke's Law. Experimental data already obtained.

Strength of parts of machines or structures as dependent on their form and the mode of application of the stress.

The Mathematical Theory of the Strength of Materials is, for the most part, reserved for the Third Year, where it is introduced as part of the course on the Theory of Structures.

In the third year there are three courses, (1) on the Theory of Structures, (2) on Thermodynamics and the Steam Engine, (3) on Mechanism.

(1) *Theory of Structures:—*

The strength, stability, and method of design of Ties, Struts, Bridge and Roof Frames, Pin and Eye Joints, Rivetted Joints, Joints in Carpentery, Beams and Girders, Continuous Beams, Shafts to resist Torsion, Boiler Shells

and Pipes, Hanging Chains and Suspension Bridges, Metal arch Ribs, Retaining Walls, Chimneys &c.

(2) *Thermodynamics and the Steam Engine* :—

General doctrine of the Conservation, Transformation, and Dissipation of Energy. Sources of Natural Energy. Measurement of Heat and Temperature. Scales of Temperature. Transference of Heat. Conduction. Theory of Exchanges. Action of Heat on bodies. Internal and External work. Specific Heat. Latent Heat. Physical properties of Steam and Gases. Boyle's, Charles', and Joule's Laws. Carnot's cycle of operations. Reversible Heat Engines. Limit of Efficiency. Stirling's and Ericsson's Air Engines. Expansion of steam. Indicator diagrams, ideal and actual. Steam Jacket. Superheated Steam. Compound Engines. Calculation of water required by Boiler and Condenser, &c. Experimental determination of the efficiency of a Steam Engine. Furnaces and Boilers, their construction and efficiency. Fuel. Distribution of Steam. Slide-valve. Link motions. Expansion valves. Governors. Automatic expansion gear. General arrangement of Steam Engines of various types. Constructive details. Other prime movers.

The study of theoretical Thermodynamics will, as far as possible, be completed during the First Term, in order that the students of Physics, etc. may attend that part of the course.

(3) *Mechanism* :—

Workshop appliances. Machine Tools. Kinematics of Mechanism. Frictional Efficiency of Mechanism. Machine Design.

During this course frequent reference will be made to the collection of hand and machine tools in the Engineering Laboratory.

At the end of the Third Year the students of Mechanical Engineering will be sent immediately to the workshops of the Naval Dockyard at Yokosuka, where they will spend about nine months in passing through the various departments, gaining practical experience of the work done in each by actually taking part in it. After this they will return to the University and spend the remainder of the Fourth Year in designing machines, and in the preparation of the graduating thesis.

Books of Reference.

2nd Year. Rankine's Applied Mechanics; Thomson and Tait's Elements of Natural Philosophy; Maxwell's Matter and Motion; Anderson's Strength of Materials.

3rd & 4th Years. Rankine's Applied Mechanics; Rankine's Civil Engineering; Rankine's Steam Engine; Cotterill's Steam Engine; Maxwell's Heat; Shelley's Workshop Appliances; Goodeve's Elements of Mechanism; Unwin's Machine Design; Rigg's Practical Treatise on the Steam Engine, &c.

DRAWING.

The course of drawing extends over three years, and is principally mechanical, the students having studied free-hand drawing in the preparatory course.

The first year is devoted to the study of Descriptive Geometry, and its application to problems.

The second year is principally taken up with Machine Drawing made either from other drawings or from models.

In the third year, the first term is devoted to coloured drawings of machines; the second term, to bridges and other

structures in civil engineering; and the third term to coloured topographical drawings.

It is the aim in the department of drawing to give the students instruction in the kind of drawing which they will need in completing the studies of the various departments of the University; hence it is impossible to mark out more minutely the work done by each student.

MINERALOGY AND GEOLOGY.

1st Year Science:—A short introduction concerning the Crystallographical Systems, the Physical Properties of Minerals (Optical properties, hardness, specific gravity &c.), and their chemical properties leads to a short explanation of the system of mineralogy. After this a short discussion of the important species of minerals is given in the order and degree of completeness of Dana's Manual of Mineralogy. Practical, and, above all, Chemical hints are always inserted, Japanese localities mentioned, &c.

This Mineralogical part is followed by the geological one in which after a brief sketch of the earth and its properties, as far as they belong to geology, (state of aggregation, movements of the earth and its parts, temperature, specific gravity) the rocks (lithological part of geology) are given a little more explicitly, as well as the so-called architectural part of geology, or the structure of mountains, and the dynamical part, or the theory of the forces that act upon the globe in the way of erosion, volcanism, mountain-making, and metamorphism. As for historical geology, only a very brief sketch of it is given to the students of this year.

2nd Year:—For Mineralogy in this year, Dana's 'Text-Book' is substituted for Dana's 'Manual.' Crystallographical theories are more explicitly given and the chemical formulae are discussed. In the descriptive part, some of the rare minerals are included, and the relations of the species and families, especially those of the isomorphous and isodimorphous groups are more detailed and completed.

The practical part is expressly given by the lectures on determinative mineralogy, in which the students are advised to determine as promptly and as certainly as possible all the more important minerals at least. Blowpipe Analysis in these lectures is not amply and fully given, as excellent lectures on this subject are elsewhere provided; on the contrary, the chief aim is to lead always to the quickest and easiest way of determining minerals. Chemical properties as well as crystallographical properties of minerals are, however, in no way excluded; among the former of course blowpipe reactions play a considerable part. The students are chiefly to follow the English translation of Weisbach, and Dana's additional tables to his Manual, &c.

In historical geology of the second year, all formations, sedimentary, eruptive, and dyke-systems, are discussed in the natural order according to their age. Especially the sedimentary formations among which the others are inserted, viz; Archacan;—Palæozoic (Cambrian Silurian, Devonian, Carboniferous, Permian);—Mesozoïc (Triadic, Jurassic, Cretaceous);—Cænozoïc (Older and younger Tertiary, Quaternary, Recent), are all discussed and rendered familiar to the students as well in the appearance of their rocks as in their fossils. Some account is given of Japanese rocks and fossils. Dana's Manual is used.

3rd Year:—Geological mapping and surveying in this year are given to the students.

Secondly, lithology is given more explicitly so that it serves as a good introduction to the microscop of rocks. In this the professor's own system is followed without a text-book, but with notices from different English, French, and German books. As far as possible Dana's manual is referred to.

Thirdly, an elementary lectures, on Paleontology form a very important portion of this year's programme. These lectures begin with Man and treat of Mammals, Birds, Reptiles or Sauria, Amphibia and Fishes; after the vertebrates, the Arthropoda (Insects, Spiders, Crustacea), the animals belonging to the worm-type in widest sense—starfish (Urchins, Crinoïds &c.), Annelida, Bryozoa or Polyzoa and Brachiopoda—and these are followed by the different classes of Mollusca, which on account of their importance, have much time devoted to them. After the Mollusca (including Cephalopoda so highly important to the geologist) the Coelenterates (Corals, sponges) and the Protozoa (especially the Foraminifera and allies) follow, and finally the second part of Paleontology viz.; Paleophytology or Paleobotany. The age of the different types, the way of development which is pointed ont by Paleontology and the value of the different organic remains for determining the age of rocks are always given with the descriptions and systematic position of the animals and plants.

The practical part of geology is chiefly represented by excursions, combined with practical advice in mapping. Besides, the third year students are required practically to determine rocks and fossils in the way indicated by the lithological and paleontological lectures.

4th Year:—Lithology is now practiced and lectured

upon with the aid of the Microscope, and all the details which could not—or only incompletely—be given in the lectures for the third year, are now added.

Paleontology is practically exercised under special direction of the professor and is always accompanied by detailed explanations on fossils. Instruction is given for making special, monographic researches on families or genera of fossils as well as on formations or parts of them.

The determination of rocks is combined with the determination of fossils. As far as possible it is also made microscopically.

The practical part contains moreover:

1. lectures and practical exercises in mapping and surveying, combined with excursions mostly made together with the professor. These lectures include the surface geology, so important to the geological surveyor.

2. lectures on Technical Geology which give a sketch (*a*) of the materials practically important (minerals, rocks, mountains); (*b*) of the laws of pressure, &c., acting upon rocks, modified as well by their cohesion, hardness, hygroscopical qualities, &c., as by their structure; (*c*) practical instruction about materials useful for various purposes viz.; water, stone, clay, cement, &c., (*d*) instruction in making use of the qualities of the soil (or surface rocks) for agricultural purposes. These lectures are also given to the Engineering students according to the programme of Civil Engineering, and therefore are to be preceded by a rudimentary treatise on Mineralogical and Geological subjects as far as they must be referred to in the following lectures.

Text-books and books of reference. Dana's Manual of Mineralogy; Dana's Text-book of Mineralogy; Frazer's

Determinative Tables (Transl. from Weisbach's work); Dana's Text-book of Geology; Dana's Manual of Geology; Nicholson's Paleontology; Woodward's Manual of Mollusca; Lyell's Principles of Geology; Lyell's Elements of Geology; Page's Economic Geology; Rutley's Lithology; Zirkel's Lithology; Zirkel's Microscopy of Minerals and Rocks.

MINING AND METALLURGY.

1. *Metallurgy.*

a. General Metallurgy.

History of Metallurgy.

Properties of metals and their important compounds.

Metallurgical Processes.

,, Materials (Fuel inclusive).

,, Apparatus.

,, Products.

,, Wastes.

b. Applied Metallurgy.

Metallurgy of Lead, Copper, Silver, Gold, Platinum, Mercury, Zinc, Cadmium, Tin, Arsenic, Antimony, Bismuth, Cobalt, Nickel, Iron.

2. *Mining.*

Mode of occurrence of useful Minerals.

Prospecting, Earthboring, Exploration of Deposits.

Miner's work and Miner's tools.

Opening, preparing and working of Mines.

Securing of Mines (Walling and Timbering).

Underground conveyance.

Appliances in shafts for descent and ascent of men.

Ventilation and Illumination of Mines.

Prevention and Extinction of fires in Mines.

Drainage of Mines.

3. *Metallurgical and Dressing Experiments.*

The laboratory in which the metallurgical experiments are conducted is supplied with a small reverberatory calcining and several smelting and retorting furnaces, while the dressing laboratory contains a wooden three-stamp battery, a Rittinger percussion-table, a Blakes rock breaker, a system of cylindrical screens, a continuous hydraulic jigger, etc.

A sufficient quantity of ores for experiments is supplied from the following Mines:

Gold and Silver Ore	from	Sado and Ikuno.	
Silver	,,	,,	Innai, Karuisawa, Kosaka.
Copper	,,	,,	Besshi and Ikuno.
Mercury	,,	,,	Wada (Yamato).
Lead	,,	,,	Mandokoro (Omi).
Tin	,,	,,	Taniyama (Satsuma).
Iron	,,	,.	Nakakosaka.
Antimony	,,	,,	Amakusa (Higo).

The students have to find out the best way of treating the ores mechanically and metallurgically, and have to determine the losses in metal during such treatment.

New methods for reduction are subjected to practical tests.

Those gentlemen who wish to get information as to the best treatment of their ores are requested to apply to the University.

4. *Designing Metallurgical and Mining Apparatus and Establishments.*

General and working drawings of Mining and Smelting Apparatus are to be made by the students. Estimates of quantity of materials as well as of the cost of their practical

execution are to accompany the drawings.

From these drawings, models for the Museum are made by the University. The further advanced students are to design whole establishments for producing or reducing a certain amount of a given ore per year.

To give them an idea of the cost of foreign materials and machinery, price lists from foreign firms have been collected.

The lectures are illustrated by a number of models, diagrams, and specimens of tools, ores, intermediate and final metallurgical products, slags, etc,—foreign as well as native.

Models and diagrams are constantly being added to the collection, special attention being paid to models and diagrams of such Machines and Apparatus as can be made in Japan.

References for the study of Metullurgy are to be made chiefly to Bloxam's Metals, &c., Greenwood's Manual of Metallurgy, Lamborn's Metallurgy of Copper, and Lamborn's Metallurgy of Silver and Lead.

ASSAYING AND BLOWPIPE ANALYSIS.

General lectures on assaying, followed by laboratory practice, are delivered to the fourth year students of Mining, Metallurgy, and Chemistry.

The laboratory practice of the Chemical students is confined to the assaying of Gold, Silver, Copper, and Lead.

During the third and fourth years of Mining and Metallurgy, lectures on blowpipe analysis are delivered, and practical instruction in qualitative and quantitative analysis with blowpipe is also given.

In the second year of Geology and Chemistry lectures on blowpipe analysis are also delivered and the students are trained in qualitative analysis.

PHILOSOPHY.

Logic being of great importunce in relation to every department of investigation and study, the students of all the three Departments, Law, Science, and Literature, are instructed during their first year in this subject, in addition to the more special ones of their respective courses.

Text-books:—Jevon's Elementary lessons in Logic; Everett's Science of Thought.

In the second year there are three courses of lectures, (1) on Psychology, (2) on History of Philosophy, (3) on Sociology.

(1) Psychology:—

A systematic exposition of Mind and the First Principles of Philosophy. The student is instructed in the Physiology of the Mind, and is made to see that there exists a very close connexion between the body and the mind; that the mind is no such absolute autocrat as has been imagined by some metaphysicians, but that all its actions, including volition itself, are not independent of the states of the organism.

The books used:—Bain's Mental Science; Carpenter's Mental Physiology; Maudsley's Physiology and Pathology of the Mind; Abercrombie's Intellectual Powers of the Mind; Haeckel's History of Creation; Spencer's First Principles of Philosophy; Spencer's Principles of Biology &c.

(2) History of Philosophy :—

An outline of the history of ancient and modern European Philosophy. The larger share of attention will be given to modern Philosophy from Descartes to Hegel and Spencer. The aim will be to discover some unity underlying the whole movement, and not merely to make independent study of isolated systems. This forms a valuable introduction to the special study of present working systems. Lectures, with Schwegler's History, and Bowen's Modern Philosophy as reference books.

(3) Sociology :—

An outline. Sufficiently distinct to exhibit the more important of the mechanical conditions under which alone any Philosophical end can be realized. Lectures, with reference to Spencer's Sociology, and Morgan's Ancient Society.

In the third year there are two courses of lectures, (1) on Modern European Philosophy, (2) on Hindoo and Chinese Philosophy.

(1) Modern European Philosophy :—

In this course will be studied in greater detail the systems of three of the most eminent of modern thinkers; but light will be thrown upon them by constant comparison with the views of others. The systems are those of Kant, Hegel, and Spencer, selected as having the most important bearing upon problems of the present day.

The books used will be Kant's Critique, Wallace's Logic of Hegel, and Spencer's Principles of Psychology Vol. II, together with portions of Mill's Examination of Hamilton, and portions of Hume's Human Nature. Lectures.

(2) Hindoo and Chinese Philosophy :—

In this course of lectures, the systems and principles of Buddhism and Confucianism are briefly taught. The text-books are Hatshiu-Koyo, Hogiohen, Daigaku, Chiuyo, Rongo and Moshi.

In the fourth year there are three courses of lectures, (1) on Psychology, (2) on Moral and Aesthetic Philosophy, (3) on Hindoo and Chinese Philosophy.

(1) Psychology :

A more advanced course in Psychology and also the study of such subjects as the following,—the comparison of the mental powers of man and the lower animals; mental evolution during primaeval and civilized times; emotional and intellectual language in animals and man; volition in culture.

The books used :—

Darwin's Origin of Species; Darwin's Descent of Man; Darwin's Expression of the Emotions in Man and Animals; Lewes's History of Philosophy; Tyler's Primitive Culture, and Early History of Mankind; Lubbock's Origin of Civilization; Lecky's Rationalism in Europe; Spencer's Universal Progress; Spencer's Principles of Psychology; Fiske's Outlines of Cosmic Philosophy; Spencer's Recent Discussions; Mill's Dissertations and Discussions, &c.

(2) Moral and Aesthetic Philosophy :—

The course in Ethics will consider the validity of modern attempts to construct a scientific theory of Morals, and a rational deduction of sound Ethical precepts.

The course in Aesthetics will elucidate those principles of criticism which rule in the formation of correct taste in the several departments of Fine Art. Lectures, with Sidgwick's Methods of Ethics for text-book. Reference will

be made to other writers, such as Calderwood, Bentham, and Spencer in his Data of Ethics.

(3) Hindoo and Chinese Philosophy :—

Lectures on Buddhism and Coufucianism commenced in the third year are continued in this year and lectures on Taoism are also given.

Text-books are Shikiōgi, Yuimakiō, Shikiō, Shokiō, Yeki, Rōshi and Sōji.

POLITICAL SCIENCE.

Politics being that part of Social Science which purports to reconcile theory with practice, instruction is given with the view of giving due weight to both sides of the study. For this reason the two years' course combines the study of the great authorities in Political Philosophy with constant reference to the application of the same in practice as shown in the constitutions and governments of different states.

The course of Political Science covers two years. To the third year class, lectures are given, firstly, on the general introduction to Law, in which the following topics are treated :—Distinctions between Law and Morality, Natural Law, Positive Law, Written Law, Unwritten Law, the Sphere of Law, Distinction between Private and Public Law.

Then Public Law is taken up ; Constitutions and Administrative Laws are studied more in detail. First, the study of Constitutions implies the treatment of the Rights of Subjects, the Nature of a State, and Different Forms of Government. Under the above subdivision the following points are discussed :—

Equality of Subjects, Liberty of the Person, the Aristocracy and the Common People. Inviolability of Dwelling Houses, Rights of Property, Secrecy of Letters, Freedom of the Press. Freedom of Faith, Relation of Religion to Government, Freedom of Education, Compulsory System of Education, Freedom of Occupation, Freedom of Association, Right of Petition, Responsibilities of Public Functionaries, Right of Import and Taxation; the Nature of a State, Distinctions in the Forms of Government. Divisions of the state-power, Legislature, Constitution of Legislative Assemblies, the Executive, Institution of the Monarch and the President, Divisions of the government, the Administrative Organ and the Judicial Organ.

In addition to the above, the constitutional history of the principal states completes the course for the third year. The books used for reference are:—

Eschbach:—"Introduction générale à l'étude du Droit."
Ahrens:—"Philosophie du Droit."
Belime:— ,,
Batbie:—"Traité Théorique et pratique de droit public et administratif Contenant Législation Comparée de Différents Etats de l'Europe)."
Laferrière:—"Constitutions d'Europe et d'Amérique."
J. S. Mill:—"Liberté."
,, "Gouvernement Représentatif."
Fustal de Coulanges:—"Cité d'antique."
Bloc:—"Dictionnaire de la Politique."
Spencer's Principles of Sociology,
,, Social Statics.
Woolsey's Political Science.

To the fourth year class, lectures are given first on Administrative Laws. We treat successively of the differ-

ent Forms of Administration; the advantages and disadvantages of Centralization and Localization; the Constitution of Administrative Organs of the Central Government, as well as that of the Local Government, different forms of Police Organization, and finally the institution of Administrative Justice.

Then Administrative Functions are taken up. They comprise the following topics:— Public Works; Public Health; Forests, Mines, Quarries and Swamps in Departments and Communes belonging either to the government, to the public, or to private individuals; Servitude. Appropriation of private properties for public utility. Roads, Railways, National and Social Taxation; direct and indirect Taxation; the Postal System, the Telegraph, Public Registration, Stamps, and National debts.

Books used for reference are :—

Ducroeg :— " Cours de droit administratif."

Batbie :—" Traité théorique et pratique de droit public et administratif."

Jules Simon :—" Liberté politique."

,, " Liberté civile."

Montesque :—" Esprit des lois."

Tocqueville :—" Démocratie en Amerique."

Blanche :—" Dictionnaire de l'Administration."

Bloc :—" Dictionnaire de la Politique."

Woolsey's Political Science.

Stephen's Liberty.

Besides the above subjects, the outline and history of Ancient and Modern Japanese Law are given in lectures during the third and fourth year.

POLITICAL ECONOMY.

In order to give the students in the second year an adequate idea of the scope of the subject, the fundamental

truths of the science are laid before them as completely as possible in the limited space of time.

Text-books:—Fawcett's Elements of Political Economy (partly); Mill's Principles of Political Economy (partly); Roscher's Principles of Political Economy.

In the third year there are two courses of lectures, (1) on Currency and Banking, (2) on Japanese Finance.

(1) Currency and Banking:—

A study in detail of all parts of the theory of this subject, illustrated by the modern financial history of leading nations. The books chiefly in use will be, Mc Leod's Theory and Practice of Banking, Jevon's Money and the Mechanism of Exchange, Sumner's History of American Currency, Seyd's Bullion and Foreign Exchanges, Walker's Money. Lectures.

(2) Japanese Finance:—

Under this head the financial organization and history of the Tokugawa Government, as well as the financial history of the present Government, are thoroughly given, and the present state of finance is discussed. Also the origin and history of the national banks in Japan are lectured upon, and the practice of Banking explained.

In the fourth year there are also two courses of lectures, (1) on Labor, Taxation, and Public Debt, (2) on Japanese Finance.

(1) Labor, Taxation, and Public Debt:— a consideration of these subjects in detail theoretically and historically.

Books in use:— Baxter's Taxation of the United Kingdom; Cairnes' Leading Principles of Political Economy; Thornton's Labor; Byle's Sophisms of Free Trade; Bastiat's Sophisms of Protection; Sumner's History of Protection in the United States; Baxter's National Debts;

Goschen's Local Taxation; Walker's Wages Questions. Lectures.

(2) Japanese Finance :—

The lectures already begun in the third year are continued throughout this year.

JAPANESE LITERATURE.

In the first year, Goibekki, Kotoba-no-shiori and Shingōshōtōki are read by the Law and Literature class. In the course of Japanese and Chinese Literature, Taketori-Monogatari, and Makurano-Sōshi are explained by the professor in addition to these books.

In the second year, Taketori-Monogatari and Makurano-Sōshi are studied in the courses of Philosophy, and of Political Science, and Political Economy; in the course of Japanese and Chinese Literature, Ookagami, Genji-Monogatari and Masukagami, Besides, in the latter course, Shoku-Yotsugi is required to be read in private and the professor will explain difficulties at the time assigned for such purpose.

In the third year, Genji-Monogatari and Manyōshiu are taught to the students in Philosophy, Political Science, and Political Economy; in the course of Japanese and Chinese Literature, the study of Genji-Monogatari is continued from the preceding year, and Kojiki and Manyōshiu are read, also Kogoshiui and Kokinshiu are required to be read in private as in the year preceding.

In the fourth year of Japanese and Chinese Literature, the study of Kojiki and Manyōshiu is continued from the third year with explanations by the professor, and Rikko-Kushi and Ruishu Sandai Kiaku are assigned for private reading.

In the course of Japanese and Chinese Literature throughout the last three years, essays and poems are required once in two months.

For students who wish to read any other books than the text-books the following are selected, those selected for the first year class being here omitted:—

2nd Year.—Jikkunshō; Uji-Shiui; Kokinshiu; Gempei-Seisuiki; Tosa-Nikki; Yeigamonogatari.

3rd Year.—Shoku-Nihongi; Manyōshiu, from the 3rd volume; Mizukagami; Masukagami; Sakubunritsu.

4th Year.—Nihon-Shoki; Nihon-Kōki; Azumakagami; Dokushi-Yoron; Taiheiki; Kotobano-Tamanoo; Kotobano-Yachimata; Kotobano-Kayoiji.

CHINESE LITERATURE.

In the first year, the Law and Literature class read Shiki in the lecture-room; students of the course in Japanese and Chinese Literature are required, besides, to read Moshi and Rongo and explain them before the professor.

In the second year of Literature, students of all the courses are required in turn to read Hachidaikabun in the lecture-room; in the course of Japanese and Chinese Literature the study of Saden is also required, Shijitsugan being assigned for private study.

In the third year, students of Philosophy, Political Science, and Political Economy are required to read Saden and explain it in turn before the professor; students of Japanese and Chinese Literature study Daigaku, Chiuyō, Shikiō, Kampishi and Junshi in the same manner. Also, Sōgentsugan is assigned to them for private study.

In the fourth year of Japanese and Chinese Literature, Yeki and Sōji are explained by the professor. Shokiō and Rōshi are also studied, each student explaining them in turn before the professor. Minchō-Kiji-Honmatsu it selected for private study.

In the course of Japanese and Chinese Literature, essays and poems are required twice a month; other students are required to write essays twice a month.

Voluntary lectures are also given, on Kokon-Gakuhes to the second year, on Kampishi to the third year, on Shikiō to the fourth year students, of all the courses.

To those who desire to read, at their leisure, books other than text-books, the following are recommended;—

Daigaku; Chiuyō; Rongo; Mōshi; Shijitsugan; Sōgen-sugan; Minchō-Kiji-Hommatsu; Kokugo; Sengokusaku; Kanjo; Go-Kanjo; Sangokushi; Tōjo; Godaishi.

HISTORY.

In the first year, the students of the Department of Law, as well as those of the Department of Literature, are required to study this subject. Some Knowledge of universal history having been already acquired, the lectures are now devoted during the first half year to the history of England, and during the remainder of the year to that of France.

Text-books: — "Student's Hume;" "Student's France."

Books of reference:—Amos' Fifty years of English Constitution; Lecky's History of England in the Eighteenth Century; Mc Carthy's History of our own times; Stubbs'

Constitutional History of England; Kitchen's History of France; Taine's "Ancient Régime;" Taine's "Revolution."

The course in history for the second year consists of the investigation of evolutions, social, political, intellectual, and religious. The subjects are treated solely with reference to the relation of cause and effect. As the time is so limited, it is, of course, impossible to enter into details of every important event, and the conditions specified for its existence can not but be general ones, except in some few cases, where on account of the nature of the event it is thought especially profitable to discuss it more minutely.

The following are some of the subjects treated of in the course of our investigation:

Climate and geographical conditions; physical and mental characteristics; ideas, general, religious, moral, and political; the relation between parent and child; the relation between ruler and subject; the relation between men and women; the respective influence of warfare and peace upon national development; manners and customs; political revolutions; religious persecutions; literature and science; the press and speech, &c.

The books in use are Spencer's Principles of Sociology, Bagehot's Physics and Politics, Maine's Ancient Law, Buckle's History of Civilization, Guizot's History of Civilization, Draper's History of the Intellectual Development of Europe, Leckey's History of European Morals, Leckey's Rationalism in Europe, Grote's History of Greece, Mommesen's History of Rome, Gibbon's Decline and Fall of the Roman Empire, Hallam's Middle Ages, Hallam's Literature, Thiers' History of the French Revolution,

Hume's History of England, Ranke's History of England, Stubbs' Constitutional History of England, Lecky's History of England, &c.

ENGLISH LITERATURE.

Before entering the special course in the Literature Department, the student is expected to be able to read, write and speak English with tolerable accuracy and readiness. This implies a knowledge of English grammar and a good general training in the elements of the language. On taking up English Literature as one of his special studies, he is first given a general acquaintance with the history of the language and literature, by means of a text-book, in which portions are assigned in due course by the instructor to be read by the student in private,—proficiency being determined by written examinations. In connection with and subsequent to this, the best works of the principal writers are put into the student's hands and critically read and explained in the lecture room. Wherever possible, entire productions are chosen in preference to extracts.

Essays and criticisms are required throughout the course. In the latter part of the course, works of secondary authors are assigned for private reading, as time permits, of which criticisms and analyses are required.

Standing is ascertained by monthly written examinations.

Text-books :—Craik's History of the English Language and Literature, 2 vols ; Sprague's Master-Pieces in English Literature, Craik's English of Shakespeare, including Julius Cœsar; Clark & Wright's Hamlet, Merchant of Venice, Richard the Second; Wright's King Lear; Morris's Chaucer's

Prologue & Knightes Tale; Kitchin's Spenser's Faery Queene, Bk I; Browne's Milton, 2 vols; Christie's Dryden, Milnes's Johnson. Payne's Burke, Griffith's Cowper.

FRENCH, GERMAN AND LATIN.

The students in the Department of Law, being required to study French Law, must take French during the two years previous to their third year. In other departments, except in the Course of Japanese and Chinese Literatures the students are required to study German during two years in the Department of Science, and during three years in the Department of Literature, in order to enable them in future to refer to German books for their further study. The study of Latin is required only of the students in Biology; it is optional to all the students in Law and Science under certain conditions.

Text-books and books for private reading: Camforts German Course; Lüben and Nacke's Lesebuch; Schödler's das Buch der Natur; Lamotte's Perrier; Sommer's Abrigé de Grammaire Francaise; Duruy's Petite Histoire des Temps Modernes; Delacourtie's Eléments de Législation Usuelle; Levasseur's Cours d'Economie; Montesquieu's Esprit des Lois; Andrews and Stoddard's Latin Grammar and Reader.

V.—ACADEMIC YEAR, TERMS AND VACATIONS.

1.—The academic year begins on the 11th of September and ends on the 10th of July.

2.—The academic year is divided into three terms: the first term comprises one hundred and five days, extending from September 11th to December 24th; the second term

eighty-three days extending from January 8th to March 31st; the third term ninety-four days, extending from April 8th to July 10th.

3.—The Winter vacation comprises two weeks, commencing on the 25th of December and ending on the 7th of January; the Spring vacation, one week, commencing on the 1st of April and ending on the 7th of April; and the Summer vacation two months, commencing on the 11th of July and ending on the 10th of September.

4.—Lectures are suspended on Sundays and on the following national holidays:—

Shiuki Kōrei Sai.	Sept.	23rd.
Kanname Matsuri.	Oct.	17th.
Tenchō Setsu.	Nov.	3rd.
Niiname Matsuri.	Nov.	23rd.
Kōmei Tennō Sai.	Jan.	30th.
Kigen Setsu.	Feb.	11th.
Shunki Kōrei Sai.	March	20th.

5.—Lectures begin at 8.30 a. m. from November 1st to March 31st, and at 8 a. m. from April 8th to October 31st.

VI.—ADMISSION, ATTENDANCE & DISMISSAL.

1.—Students are admitted at the beginning of the academic year, but in exceptional cases they may enter at the beginning of the second or third term.

2.—Applicants for admission to a first year class must be at least sixteen years of age; for admission to a second year class they must be at least seventeen years of age, and so on.

3.—Students to be admitted to a first year class must have completed the prescribed course in the Yobimon, or in case they have not studied in the Yobimon they must show, on examination held there, the same degree of proficiency as those who have completed the Yobimon course.

4.—Candidates for advanced standing are first examined on the subjects necessary for admission to a first year class and then on the subjects which have been previously pursued by the class which they propose to enter, and the results of these examinations are referred to the scheme connected with art. 11 of the regulation for examinations, in order to determine their admission. Those who have pursued their studies in any other college are exempted from examination on any subject in which they can show certificates satisfactory to the authorities of the University.

5.—No candidates are admitted later in any course than the beginning of the fourth year.

6.—If a student who has voluntarily left the University again applies for admission, in order to pursue the same course as he took before, he may be admitted during the first term, to the class of the same grade as the one in which he was when he left the University. Those, however, who desire to enter a course different from that which they took before, are subject to the rule mentioned in art. 4.

7.—Applicants for admission are required to present to the secretary of the University a written application according to the prescribed form, together with the certificate of the Yobimon to the effect that they have passed satisfactorily the entrance examinations held there. Students

promoted from the Yobimon are admitted without formal application.

8.—A student admitted to this University is required to present, in accordance with the prescribed form, a bond executed on the part of himself and two guardians, one as a principal. The guardians must be male householders, above twenty years of age and must reside in one of the fifteen districts of Tokio Fu. In case the student can not obtain two guardians writin these districts, he may be allowed to have a person who has a residence in one of the six *gun* of Tokio Fu, as one of his guardians.

9.—In case the guardian dies, or moves beyond the above fifteen districts or to other Fu or Ken, a new guardian must at once be substituted to fill the vacancy, a new bond being executed according to the prescribed form.

10.—If either guardian desires to leave Tokio and travel for more than four weeks, he must, before his departure, state such desire and provide a substitute having power of attorney; and when he returns he must also inform the secretary of his return. If both guardians leave the city at the same time, for a period of less than four weeks, they must first provide a substitute, and if their absence is longer than four weeks a second substitute must also be provided.

11.—If a day-student be absent from the class on account of sickness or other unavoidable cause, the guardian of such student shall send to the secretary, not later than the day following such absence, a note explaining the cause of absence; if he expects to be absent continuously for more than one day, the above note, mentioning also the number of days of his absence, shall be sent to the secretary, not later than the day following the beginning of such absence. In case the absence is prolonged on account of

sickness for more than two weeks, a certificate from the medical attendant shall accompany the guardian's note.

N. B. A resident student, who leaves the boarding-house temporarily and attends the class as a day-student, shall be subject to this article.

12.—In case a student becomes, on account of sickness, unable to pursue his course on the ground that it is injurious to his health, and applies within one month from the beginning of the academic year for permission to select and pursue some other course, he may be permitted to do so after due consideration, according to the circumstances of the case.

13.—Any student, who, on account of negligence or misconduct or breach of the University regulations, may be found unworthy to be any longer a student of the University, will be promptly dismissed.

14.—A student who fails at any examination and whose failure necessitates his dismissal according to the scheme connected with art. 11 of the regulation for examinations, will be dismissed.

15.—When a student, who, on account of sickness or any other cause is absent from the annual examination, or from either of the two term examinations, and is not entitled to a special examination mentioned in art. 12 of the regulation for examinations, absents himself from the annual examination or from either of the term examinations in the next academic year, he will be dismissed from the University. Also a student, who, having failed at the annual examination, or at either of the two term examinations, absents himself from the annual examination or from either of the term examinations in the next academic year, will be subjected to the same rule.

16.—When on account of sickness a student shall be found by the physician of the University unable to follow the regular course, he will be dismissed from the University.

17.—Any student, who desires to leave the University on account of sickness or any other cause, may be allowed to do so on application made by himself and his guardians.

VII.—EXAMINATIONS AND CERTIFICATES.

1.—The annual examination commences on June 21st, when students are examined on all subjects studied during the year.

2.—Term examinations are held during the last week of the first and second terms, when students are examined on all subjects studied during each term. No term examination is held at the end of the third term. The term work terminates on June 17th.

3.—Marks for the work done during each term in each subject are assigned by the professor, independently of the examination, at the end of the term. These marks shall be determined, as far as possible, by written examinations, exercises, or essays.

4.—The term mark (special average) of the student in each subject at the end of the first and second terms is determined by giving equal weight to the marks for the work done during the term and the marks gained at the term examination.

N. B. The determination of the term mark for laboratory work is not subject to this rule.

5.—The year mark of the student in each subject, at the end of each academic year is determined by adding twice the average marks for term work and term examinations to the marks for final examination, and then dividing the sum thus obtained by 3.

6.—In the case of any subject which is studied during a portion only of the academic year, the year mark of the student in that subject is determined in the same way as in the case of the foregoing article.

7.—The general average of the student for each term is determined by dividing the sum of the term marks, in all the subjects by the number of the subjects.

8.—In the same way the general average of the student for the whole academic year is determined by dividing the sum of the year marks in all the subjects by the number of the subjects.

9.—At the end of each term each professor or instructor shall report to the Sori the marks for term work and examinations of all students under his charge. For laboratory work, however, only the term mark, or special average, shall be reported.

10.—At the end of the first and second terms a list of each class is posted, arranged in the order of merit, showing the marks for the work done during the term, and for the term examination, the term mark or special average in each subject, and the general average for the term. At the end of the academic year, it is posted, in the same way, showing the term average and the final examination and the year mark in each subject and the general average for the year. The names of the students of each class are printed in the Calendar in the order of their general averages for the year.

11.—At the end of each term, and at the end of the year, students are promoted, degraded, or dismissed, according to the scheme given in the following pages. Students who have failed in any examination are not allowed to be re-examined under any circumstances.

GENERAL AVERAGE.	TERM MARK UNDER 60.			DISPOSITION OF STUDENT.
	Number.	Lowest.	Next Lowest.	
60 to 100	None.			Promoted.
	1.	40 to 59+		do.
		0 „ 39+		Degraded; (If the mark either for the term work or examination is 60 or over.) Promoted.
	2.	40 „ 59+		Promoted.
		0 „ 39+	50 to 59+	Degraded; (If the marks either for the term work, or examination in both subjects are 60 or over.) Promoted.
		0 „ 39+		Degraded.
	3 or more.	50 „ 59+		Promoted.
		40 „ 49+		Degraded; (If the number of the subjects in which the term mark is under 60 is less than, or equal to, half of the whole number of subjects pursued by the student.) Promoted.
		0 „ 39+		do.
50 to 59+	1 or more.	0 „ 59+		do.
40 to 49+	1.	0 „ 49+		do.
	2 or more.	0 „ 49+		Dismissed.
0 to 39+	1 or more.	0 „ 39+		do.

GENERAL AVERAGE.	YEAR MARK UNDER 60.			DISPOSITION OF STUDENT.
	Number.	Lowest.	Next Lowest.	
60 to 100	None.			Promoted.
	1.	50 to 59+		do.
		0 „ 49+		Degraded; { If either term average or examination mark is 60 or over. } Promoted.
	2.	50 „ 59+		Degraded; { If either term average or final examination mark in either of the two is 60 or over. } Promoted.
		40 „ 49+	50 to 59+	Degraded; { If either term average or final examination mark in both is 60 or over. } Promoted.
		0 „ 49+		do.
	3 or more.	0 „ 59+		do.
50 to 59+	1 or 2.	0 „ 59+		do.
	3 or more.	40 „ 59+		do.
		0 „ 39+		Dismissed.
40 to 49+	1.	0 „ 49+		Degraded.
	2 or more.	0 „ 49+		Dismissed.
0 to 39+	1 or more.	0 „ 39+		do.

12.—Students who are absent from the annual examination, or from either of the two term examinations, will not be specially examined, unless their marks already obtained during the period to which the examination refers, are those which, according to the foregoing scheme, entitle them to such special examination. This special examination is held at the beginning of the next term.

13.—Students, who fail at the annual examination or at either of the two term examinations, are required to attend the same class from the first term of the next year and pursue all the subjects studied by that class. They may sometimes be exempted from attending lectures on those subjects which are studied only during one year or a portion of the year, and on which they have passed the examinations; but they must be present at all the examinations held during the year.

14. In case the students, who have failed at the annual examination or at either of the two term examinations, or who have been absent from the annual examination or either of the two term examinations, fail at any of these examinations of the next succeeding year, they shall be dismissed.

15.—At the end of each academic year each student, whose term and final examination marks are such as to entitle him to promotion according to the scheme of art. 11, receives a certificate. Certificates are of two kinds, one to certify that the student has finished all the studies for one year and the other to certify that the student has completed his whole course, the former being given to the first, second and third year students, and the latter being given to the fourth year students.

VIII.—DIPLOMAS.

1.—The degree of Ho-Gakushi in the Department of Law; that of Ri-Gakushi in the Department of Science; and that of Bun-Gakushi in the Department of Literature are granted to students who have completed one course in the respective Departments.

2.—Degrees are granted at the end of each academic year.

IX.— POST-GRADUATE STUDY.

1.—Any graduate of the Departments of Law, Science, and Literature, who may desire to pursue further his studies in the Department in which he has graduated, may be permitted to do so, according to the convenience of the University.

2.—All expenses shall be borne by the student himself.

3.—Books, apparatus, chemicals &c., are provided for him in the same manner as for undergraduate students.

4.—The length of such study is not less than one year and does not exceed two years under any circumstances.

5.—Such students may live in the University buildings as circumstances may allow.

6.—Tuition fees and bonds from guardians are not required from such students.

7.—On completing these studies the student is required to present a thesis written on the subject which he has pursued, to the professor or instructor of that subject.

X.—ELECTIVE STUDIES.

1.—Applicants, who wish to study one or more of the subjects prescribed for the second, third, or fourth year classes in any Department, are permitted to do so, as the number of regular students may allow; the English, French, and German, languages can not be chosen. Only graduates of the University may choose the subjects prescribed for the first year.

2.—If any regular student above the first year in any of the Departments of Law, Science, and Leterature, having sufficient time and ability to take elective studies, besides satisfactorily pursuing his own course, applies for permission to study not more than two subjects prescribed in any courses as elective, he may be allowed to do so according to the special recommendation of both instructors, those connected with his course as well as those of the elective studies. Those subjects in his course which are pursued by a class higher than his own can not be chosen as elective studies.

3.—Regular students and graduates may choose the English, French, or German language as an elective study.

4.—Applicants for permission to pursue elective studies must be at least twenty years of age. Regular students who take the elective studies are not subject to this rule.

5.—If former students of the Departments of Law, Science, and Literature, who have left the University, apply for readmission in order to pursue the elective studies, they may be admitted according to the circumstances of the case.

6.—Such applicants, before admission to any classes, must satisfy the respective professors or instructors of their fitness to pursue the studies selected.

7.—Students, who have entered on the study of any subject, are not permitted to abandon the same in favor of another subject, until the close of the academic year or the termination of the work of the regular class in that subject.

8.—Students of elective studies are subject to the same examinations and penalties as regular students of the same subjects and receive upon application a certificate from the University in case their term and final examination marks are such as to entitle them to promotion according to the scheme of art. 11 of the regulations for Examinations.

9.—The time for admission, the amount of tuition-fee, and rules concerning guardians are the same as those for regular students.

10.—Students of elective studies shall, in general, provide their own text-books, but they may borrow them from the library if there be a sufficient number of extra copies.

11.—Bonds from guardians or tuition-fees are not required in the case of graduates of this University.

12.—All the other regulations of the University to which regular students are subjected, apply in the case of students of elective studies.

XI.—LECTURE-ROOMS AND LABORATORIES.

The lecture-rooms and laboratories assigned to professors are put under the care of their respective assistants, or under the care of the secretary of the University.

XII.—LIBRARY.

1.—The University Library is divided into that of the three Departments of Law, Science, and Literature, and that of the Department of Medicine.

2.—The books contained in the library of the said three Departments are provided for use as text-books and books of reference for the said Departments and Yobimon.

3.—The books contained in the Medical Library are provided for use as text-books and books of reference for the Department of Medicine.

4.—No one shall be admitted into the godown of the library of the said three Departments to look for books and take them out of the godown, except the librarians of the said Departments.

N. B. This rule does not apply in the case of the officers and students mentioned in articles 38, 39, and 40.

5.—No one shall be admitted into the godown of the Medical Library to look for books and take them out of the godown except the librarians of the Department of Medicine.

N. B. This rule does not apply in the case of the officers mentioned in article 37.

6.—Both libraries are open for giving out and receiving back books during the ordinary office hours with the exception of the last ten minutes.

7.—The Sori, Kanji, and Cho of every Department and also of the Yobimon, are entitled to have in their possession, for official purposes, volumes not exceeding ten at one time.

N. B. The number of volumes being counted according to the books bound in European style, three volumes

bound in Japanese style are counted in all cases as equal to one volume in the former styles.

8.—The books used by the professors or instructors as text-books shall be the same as those which are used by the respective classes.

9.—Every professor or instructor is entitled to have in his possession as books of reference, volumes not exceeding twenty five at one time.

N. B. Every professor or instructor in the Medical Department is entitled to have ten volumes at one time.

10.—The books taken out of the library of the three Departments for the use of laboratories, the Astronomical Observatory, the Meteorological Observatory, the Museum and the Koishikawa Botanical Garden, shall not exceed fifty volumes at one time; the maps for the lecture-room of History shall not exceed six; the drawings for the Drawing room shall not exceed ten. If a greater number of books, maps and drawings are required, they may be taken out of the library for one day only, at the request of the professors or assistants of the respective places.

11.—The books taken out of the medical library for the use of laboratories and hospitals shall not exceed twenty volumes.

12.—Any professor or assistant responsible for the books stored in the places mentioned under articles 10 and 11 may remove any of them from those places, if necessary, by countersigning the record-book provided for that purpose, in which the name of the borrower is recorded. All books thus removed shall be returned next morning.

13.—The books stored in the places mentioned under articles 10 and 11 shall occasionally be examined by the librarians.

14.—Books may be taken out of the library by special permission for the use of any office of the University.

15.—Every officer, professor or instructor is entitled to have in his possession three volumes at one time for his private use.

16.—In case any officer, professor, or instructor, of the Departments of Law, Science and Literature wishes to borrow any book from the Medical Library, or any one of the Department of Medicine from the library of the Departments of Law, Science, and Literature, he shall present to the librarian of that library, from which he desires to borrow a book, a note from the other librarian, in which the number of books already borrowed is mentioned. In order to borrow a book, he must conform to article 17.

17.—Every officer, professor or instructor borrowing any book from the library shall first deliver a note containing his seal or signature, the title of the book, and the year and day of the month on which such book is borrowed. For every book taken out for the use of the places mentioned under articles 10 and 11, the professor, instructor or assistant responsible for it shall deliver such a note.

18.—Every officer, professor, or instructor is generally required to come to the library to borrow a book.

19.—Students who are unable to supply themselves with text-books may borrow them from the libraries upon application. The students in the medical course taught in Japanese, however, are not included under this rule.

20.—For every book borrowed under the preceding article, a certificate is required from the professor or instructor in whose department the book is to be used, that such book is needed by the student.

21—If any of the books stored in the places mentioned under articles 10, 11 and 14 be lost, the officer, professor or assistant responsible for it is required to make known the fact to the librarian of the respective library. When it is uncertain whether such book is lost or not, he shall also inform the librarian of such fact ; if he does not find it after six months, he is required again to inform the librarian of the same.

22.—All books borrowed from the libraries, shall be returned between the 11th and 20th of July of every year, or oftener if required by the librarian.

23.—The books borrowed by the students of the Departments of Law, Science, and Literature, as well as by those of the Yobimon shall be returned within five days from the end of the annual examination, and the books borrowed by the students of the Department of Medicine shall be returned within five days from the end of every term examination, or oftener if required by the librarian. The books borrowed by the fourth year students of the Departments of Law, Science, and Literature, and also by the first class students of the Department of Medicine must all be returned before the delivery of diplomas.

24.—Students may borrow books during the summer vacation upon presenting a certificate from their respective professors or instructors, no one student having out more than five volumes at one time. Students of the Department of Medicine shall have out not more than two volumes.

25.—In case any officer, including professor or instructor, retires from his office, or in case a student leaves the University, he shall immediately return the books which he has borrowed from the libraries. In case an officer, professor, or instructor responsible for the books

taken out of the libraries under articles 10, 11, and 14, retires from his office, he shall return such books according to this rule.

26.—The reading room of the Departments of Law, Science, and Literature is divided into four divisions; viz., for officers, professors, and instructors; for the Department of Law; for those of Science and Literature; and for the Yobimon. The reading room of the Department of Medicine is divided into two divisions, viz., for the officers, professors and instructors; and for the students.

27.—The reading room of the Departments of Law, Science, and Literature is open daily at 7 a. m. and is closed at 9 p. m. from September 11th to October 31st, and from May 1st to July 10th; from November 1st to April 30th, it is open at 7. 30 a. m. and is closed at 9 p. m., except on holidays. On Sundays, it is open at 6 p. m. and closed at 9 p. m.

28.—The reading room of the Department of Medicine is open daily at 8 a. m. and closed at 8 p. m., except on holidays.

29.—During the Winter vacation the reading rooms are open from December 25th to 28th, and from January 4th to 7th; during the Summer vacation, they are open from July 11th to 30th, and from August 22nd to September 10th, except on Sundays. During the latter vacation they are open at 8 a. m. and closed at noon.

30.—Every applicant for books belonging to the reading rooms, shall present to the officer in charge of the said rooms, a note containing the title, shelf-mark, and number, of each book as given in the Catalogue, together with the signature of the applicant with the date, in

exchange for which note, the books shall be delivered to the applicant. All books, when done with, must be promptly returned.

31.—Students shall not be admitted into other than their respective divisions.

32.—Current numbers of daily papers are placed daily from 1 p. m. upon the reading desks in the division assigned for the Yobimon in the library of the Departments of Law, Science, and Literature; and in the division assigned for the students in the Medical library. Old numbers, however, must be borrowed according to article 30.

33.—If officers, professors, instructors or students of the Departments of Law, Science, and Literature desire to be admitted into the reading-room of the Medical library, and those of the Department of Medicine, into that of the library of the Departments of Law, Science, and Literature, they shall present to the librarian of the library into whose reading-room they desire to be admitted, a note, obtained from the librarian of their respective library. Not more than twenty students shall be admitted during any one day into the reading-room of either library under this rule. The special students in the Department of Medicine shall use the division assigned for the Departments of Science and Literature, and the preparatory students shall use the division for the Yobimon.

34.—Former officers who have been in the service of the University more than two years, and the graduates of the University are admitted into the reading-rooms upon presenting the ticket previously given. Those who come to the library of the Departments of Law, Science, and Literature shall use the division assigned for the Departments of Science and Literature.

35.—Any officer of the Mombusho or other Departments of the Government shall be admitted into the reading rooms at the request of such Department.

36.—Well known learned men may be admitted into the reading-rooms at the discretion of the authorities. Any one who is admitted into the reading room of the Departments of Law, Science, and Literature shall use the division of the Departments of Science and Literature.

37.—Valuable books belonging to the reading-rooms shall not be shown to any one without special permission except to those connected with the special course, to which the books belong. Such books taken out for the use of lecture-rooms or laboratories by special permission shall be returned within the same day on which they are taken out.

38.—The sōri, kanji, chō of every Department, and Yobimon, professors, instructors, the secretaries in charge of affairs connected with instruction, and also a limited number of other officers are admitted into the godown to look for the books desired.

39.—The post-graduates and fourth year students of Law, Science, and Literature, not exceeding five at one time are admitted into the godowns of the library of the Departments of Law, Science, and Literature, for the purpose of consulting books with reference to some special work or their graduating theses. When they come to the library for the above purpose, they must upon entering give to the officer in charge of the reading room the wooden ticket previously received, and receive it back from the same officer on coming out. On finding the books desired, they must immediately come out of the godown, and consult the books in conformity with art. 30.

40.—The law students are admitted into the law library godown to find the books desired, subject to the rule mentioned under article 30. This rule will apply also in the case of former professors or instructors of the Department of Law, and in that of Hogakushi of the University, having special admittance into the law library godown.

41.—While in the godown, those, who are admitted into it under the foregoing articles, are required not to disarrange the books and not to offer any impediment to the officer in charge of the reading-room.

42.—No book belonging to the reading-room shall be taken out, except by special permission.

43.—Nothing shall be carried into the reading-room except books, paper, pen and ink.

44.—Loud talking, reading aloud, discussion, smoking &c., which disturb others are not allowed in the reading-room. Persons guilty of such offences shall be deprived of the privilege of admittance into the reading-room for one week at least and ten weeks at most.

45.—Books, newspapers, and periodicals must not be taken out of the reading-room. Persons guilty of such offences shall be deprived of the privilege of admittance into the reading-room, and also of borrowing or retaining any book whatever, for one year thereafter, all books in their hands being called in.

46.—No one shall go into any godown of the reading-room without special permission. Persons who violate this article shall be deprived of the privilege of admittance into the reading-room and also of borrowing or retaining any book whatever for one year thereafter, all books in their hands being called in. The admittance of officers,

professors or instructors, and students into the godowns according to articles 38, 39 and 40 is not affected by this article.

47.—If any book in the hands of the borrower (except the books borrowed according to articles 10, 11, and 14,) be damaged, the borrower shall make it good or shall replace it with another of the same edition and of equal value.

48.—If any book in the hands of the borrower (except the books borrowed according to articles 10, 11, and 14,) be lost, the borrower shall as soon as possible replace it with another of the same edition and of equal value. This rule will also apply in the case mentioned in article 12.

49.—If any officer, professor, or instructor shall violate article 22 and shall not return any book within a week after due notice sent by the librarian requiring the return of such book, the right of such person to borrow or retain books for private use shall be suspended and remain in abeyance for one year thereafter.

50.—If any student shall violate article 23 and shall not return any book within a week after due notice sent by the librarian requiring the return of such book, no book shall be lent to him for three terms thereafter.

51.—If any book in the hands of the borrower is detained beyond the time fixed for its return and is not returned after notice is repeatedly sent by the librarian requiring the return of such book, it shall be claimed through the proper authority.

XIII.—MUSEUM.

1.—The collections in the Museum are provided for lecture-illustration, and for examination by students in the Department of Science.

2.—The Museum is divided into eight cabinets, namely

1. Mineralogical Cabinet.
2. Geological and Paleontological Cabinet.
3. Zoölogical Cabinet.
4. Botanical Cabinet.
5. Archæological Cabinet.
6. Chemical Technology Cabinet.
7. Civil and Mechanical Engineering Cabinet.
8 Mining and Metallurgical Cabinet.

3.—The classification and arrangement of specimens in each Cabinet are under the charge of the keeper who is required to consult previously with the professors or instructors for the classification and arrangement of specimens of their respective departments.

4.—No one is allowed to touch or handle any specimen in the cabinets, except the professors or instructors of the respective departments. In case any professor or instructor desires to take specimens out of the cabinet of his own section, he shall first inform the keeper of his desire.

5.—The Museum is open to students daily from 9 A. M. to 4 P. M. During this time students are admitted into the Museum upon presenting written permits signed by the professor or instructor of their respective courses. Students are allowed to touch or handle only such specimens as are connected with their respective courses.

6.—Persons wishing to visit the Museum are admitted without tickets every Sunday from 9 A. M. to 4 P. M. On Sundays which are national holidays, during the twenty days from July 20th to August 8th, and during the winter vacation, it is not open to the public.

7.—Visitors must observe the following rules:

No one is allowed to touch or handle any specimen.

Visitors must wear shoes or *zori* (straw sandals).

No one is allowed to bring a dog into the building.
Smoking is not allowed in the building.

XIV.—APPARATUS, CHEMICALS, &c.

1.—Instruments, apparatus, chemicals, and other articles provided for the use of lecture-rooms, laboratories, the Astronomical Observatory, the Meteorological Observatory, the Koishikawa Botanical Garden, Hospitals, and other offices of the University, may be borrowed by a responsible person upon giving the officer in charge of them a receipt executed according to article 6. The instruments and apparatus borrowed for temporary use shall be returned promptly when done with, but those for constant use may be stored in the above named places.

2.—No student shall use or take out those instruments &c., which are borrowed for the use of the places mentioned under the preceding article, without permission of a person responsible for the respective instruments, &c.

3.—Students who are unable to furnish themselves with instruments, &c., may borrow them upon application. For this purpose students shall give the officer in charge of instruments, &c., a note according to article 6.

Students of the medical course in Japanese may borrow the apparatus while they are in the lecture-rooms only.

4.—A certain limit of the amount of chemical apparatus to be used by the students shall be previously fixed by the responsible professors or instructors in the laboratories and the officer in charge of the instruments, apparatus, chemicals, &c. Though the amount of apparatus broken exceeds the limit, yet students may be furnished with the

apparatus further needed, provided that such article broken be replaced by the students afterward with one of the same kind and of equal value.

5.—Students shall be furnished with chemicals and other articles needed, upon presenting to the officer in charge of instruments, apparatus, &c a record book provided for the purpose, according to article 6.

6.—Every person borrowing or receiving any instrument, apparatus, chemicals, or other articles, shall give the officer in charge of instruments, apparatus, &c. a note containing the name of such instrument, apparatus, or articles, their number or quantity, and the date, together with his name and signature.

Such note given by a student shall be countersigned by the professor or instructor of the respective lecture-rooms or laboratories.

7.—No instrument, apparatus, chemicals, nor any other articles borrowed or received by the students shall be taken out of the lecture-rooms or laboratories without permission of the professors or instructors of the respective rooms or laboratories, except the magnifying glass and drawing instruments.

8.—In case any professor, instructor, or student desires to take with him any instrument, apparatus, or chemicals upon scientific excursion, he is required to send to the office of instruments, apparatus, and chemicals, a written application containing the name of the instrument, apparatus, or chemicals, and the number or quantity required. To borrow the same instrument, apparatus, or chemicals, after permission is given he must comply with article 6, and in case the same instrument, &c. be lost or broken, with article 13 or 14.

9.—If students use the surveying instruments whether in the University grounds or out of it, one student representing the whole class shall give the officer in charge of instruments a note according to article 6.

10.—Instruments and apparatus stored in the places mentioned under article 1 shall be examined once a year by the officer in charge of them.

11.—Instruments and apparatus borrowed by students shall be returned, in the Department of Science, within three days from the end of the annual examination, and, in the Department of Medicine, also within three days from the end of each term examination; those for temporary use shall be returned when done with. In the Department of Medicine, students may borrow at one time only one set of apparatus for temporary use, and they are not allowed to borrow other apparatus unless they return the apparatus already borrowed.

12.—Instruments, apparatus, and chemicals, taken by the professors, instructors, or students, for excursions shall be returned immediately after their return to Tokio.

13.—If the apparatus borrowed by students be broken, they shall report the fact to the officer in charge of it, together with the broken pieces, otherwise they are not allowed to borrow apparatus even within the limit mentioned under article 4. In case the apparatus be lost, they are required to replace it with apparatus of the same kind and of equal value.

14.—If instruments borrowed in the places mentioned under article 1 be broken or lost, the facts must be reported to the office of instruments, apparatus, and chemicals, and after the facts are examined by the officer in charge of them, the professors or instructors responsible for them

shall or shall not be required to replace them with instruments of the same kind and of equal value, according to the circumstance of the case. This will apply in the case of chemicals of great value, and also of apparatus when lost; while, in case of breakage, the broken pieces shall always be sent to the office of instruments, apparatus, and chemicals, together with a report of the facts in the case.

15.—Students are required to clean the borrowed instruments or apparatus and keep them in good order. If through negligence the apparatus becomes out of order, the students are required to pay the expense of cleaning or repairing, but if destroyed, they must replace it with apparatus of the same kind and of equal value. The professors or instructors are required to superintend the instruments, apparatus, and chemicals, borrowed by the students under their charge.

16.—If instruments, apparatus, or chemicals, of great value borrowed by the students, are broken or lost, the facts shall be reported to the office for instruments, apparatus, and chemicals, and after the facts are examined by the officer in charge of such instruments &c., the students are required to replace them with instruments &c. of the same kind and of equal value. The above report must be countersigned by the professors or instructors of the respective lecture-rooms or laboratories.

17.—All applications for purchase or repairs of any instrument, apparatus or chemicals used in the lecture-rooms or laboratories shall be made at the office of the same.

18.—Any thing made at the lecture-rooms or laboratories by using materials belonging to the University shall

be sent afterward to the office, to which it properly belongs, and shall not be taken possession of by any person, unless special permission is given.

XV.—ASTRONOMICAL OBSERVATORY.

The astronomical observatory of the Department of Science is situated at Motofujichō, Hongō, and its approximate position is

Latitude, + 35° 42′.7

Longitude, $9^h\ 19^m\ 4^s$ East of Greenwich.

The astronomical work thus far, has been confined to the instruction of the Astronomical, Mathematical, Physical, and Civil Engineering students, in work with transit, zenith-telescope and sextant; and, until the instrumental equipment is increased, this is all that can be done.

A workshop with a good outfit of lathes, forge, tools, &c., has been added during the last year, and placed in the part of the building vacated by the Meteorological Observatory; and additions and repairs to instruments, such as can be executed by Japanese workmen, are now made in this shop.

XVI.—METEOROLOGICAL OBSERVATORY.

The meteorological observatory of the Department of Science is situated at Motofujicho, Hongo. The instruments in use are such as are ordinarily found in a meteorological observatory. Regular observations at fixed hours in the day are maintained and during the year 2542 (1882) hourly observations are to be made during the months of

January, May, August, and November. Annual reports are published containing tables of the observations with charts and diagrams exhibiting the meteorological phenomena for the year. In addition to this a monthly chart is published in the Gakugei-shirin and a weekly diagram in one of the English newspapers. All students of the Department of Physics have free access to this observatory for purposes of study or investigation.

XVII.—KOISHIKAWA SHOKUBUTSUYEN.

(*Koishikawa Botanical Garden*)

1.—The Botanical garden belonging to Tokio Daigaku is under the control of the Department of Science, and is designed for the use of the students of Tokio Daigaku and the Yobimon, as the place for their practical work in Botany. Others also are allowed to visit the garden on complying with the following rules.

2.—All persons desiring to visit the garden receive tickets of admission from the gate-keeper and are to return the same on leaving.

3.—No horses, dogs, carriages, *geta* or *hiyorigeta* (Japanese shoes) are allowed in the garden. Straw sandals are provided instead of *geta* or *hiyorigeta*.

4.—Professors, teachers, or students of Tokio Daigaku or the Yobimon, who are connected with the department of Botany, may obtain at the office of Tokio Daigaku a special permit allowing them to pluck flowers &c., for the purpose of practical study in Botany.

5.—Flowers and branches of plants or trees are not allowed to be plucked by visitors. This rule does not apply

to those who bring a special permit approved by the officer of the garden.

6.—From May 1st to September 30th, the garden is open daily from 8 a. m. till 5 p. m., and from October 1st to April 30th it is open from 9 a. m. till 4 p. m. Those who bring special permits may be admitted at other times.

7.—The drinking of intoxicating liquors is not allowed in the garden.

XVIII.—EXPENSES.

1—The necessary expenses of one student including the tuition fee, the cost of living, fire and light, are about five yen per month.

2.—The tuition fee of each student for one term is four yen which must be paid to the treasurer of the University within twenty days from the beginning of each term. The fee thus paid shall not be returned to any student in case of his absence or departure from the University, under any circumstances. Newly admitted students, other than students admitted from the Yobimon, are required to pay the fee within twenty days from the day of their admission.

3.—If any student is unable to pay the fee, he may be permitted to pay a half or quarter, or the fee may be altogether remitted, in case he applies for it within ten days from the beginning of a term or from the day of admission.

OFFICERS.

Hiroyuki Kato, Sori.

Kensai Ikeda, Sori-Kokoroye.

Tadanori Ishiguro, Sori-Hojo.

Ichizo Hattori, B. Sc., Kanji.

Nobushige Hozumi, Barrister-at-Law, Hogakubuchō.

Daiboku Kikuchi, M. A., Rigakubuchō.

Masakazu Toyama, Bungakubuchō.

DEPARTMENT OF LAW.

KIOJU (professors).

Henry T. Terry, B. A., Counsellor at Law.

English Law and International Law.

William A. Houghton, B. A.

English Literature.

Masakazu Toyama.

English.

Ernest F. Fenollosa, B. A.

Logic.

NOBUSHIGE HOZUMI, Barrister-at-Law.
English Law, Jurisprudence, and Encyclopedia of Laws.

KIYONORI KONAKAMURA.
Ancient and Modern Japanese Law.

KOSHI.

KUNIOMI YOKOTA.
Present Japanese Criminal Procedure.

SEIRI TOMANO.
Present Japanese Civil Procedure.

AKIRA TSURUDA.
Present Japanese Criminal Law.

ARICHIKA IMAMURA.
French.

MASAKOTO KIMURA.
Ancient Japanese Law.

TATSUÓ KISHIMOTO, Licencié en Droit.
French Law.

TAKEO KIKUCHI, LL. B.
English Law and English Constitution.

AKIRA SHINOBU.
Chinese Literature.

JOKIOJU.

MORITARO KOGA.
French.

TAKESATO IIDA.
Ancient Japanese Law.

MICHISABURO MIYAZAKI, Hogakushi.
History of Japanese and Chinese Law.

JUN-KOSHI.

NAIBU KANDA.
Latin.

KIYOOMI CHIKAMI, Bungakushi.
Logic.

INAGI TANAKA, Bungakushi.
Japanese Literature.

KIYOOMI OZAWA.
Ancient Japanese Law.

SEIICHI SUYEOKA, Bungakushi.
History.

DEPARTMENT OF SCIENCE.

KIOJU.

WINFIELD S. CHAPLIN.
Civil Engineering.

WILLIAM A. HOUGHTON, B. A.
English.

MASAKAZU TOYAMA.
English.

DAIROKU KIKUCHI, M. A.
Pure and Applied Mathematics.

RIOKICHI YATABE, B. Sc.
Botany

CURT NETTO, HÜTTEN INGENIEUR.
Mining and Metallurgy.

JAMES ALFRED EWING, B. Sc.
Mechanical Engineering.

IWAO IWASA, HÜTTEN INGENIEUR.
Assaying, Blowpipe Analysis, and German.

KENJIRO YAMAGAWA, PH. B.
Physics.

HENRY M. PAUL, B. A., C. E.
Astronomy.

MORISABURO HIRAOKA.
Physics.

GODFRIED WAGENER. Ph. D.
Chemical Technology.

KEISUKE ITO.
Botany.

TOKAI NAGAMATSU.
Physiology.

NAOKICHI MATSUI, PH. D.
Analytical Chemistry and Organic Chemistry.

KARL GOTTSCHE. PH. D.
Geology, Mineralogy, and Paleontology.

KOSHI.

TSUNASHIRO WADA.
Mineralogy.

KOI FURUICHI, Ingénieur des Arts et Manufactures; Ancien élève de l'Ecole Centrale des Arts et Manufactures; Licenciés és Sciences Mathématiques.
Mathematics.

NORIYUKI KOJIMA, B. Arch.
Architecture and Mechanical Drawing.

JOJI SAKURAI, F. C. S.
Analytical Chemistry and Inorganic Chemistry.

KAKICHI MITSUKURI, Bh. B.
Zoology.

JOKIOJU.

MORITARO KOGA.
French.

KIYOKAGE SEKIYA.

Mechanical Engineering.

TAKUMA DAN.

Astronomy.

WATARU WATANABE, Rigakushi.

Mining and Metallurgy.

SHUNJI OMORI, Rigakushi.

Mechanics.

IWATA NAKAZAWA, Rigakushi.

Chemistry.

TOYOTA ISHIDO, Rigakushi.

Chemistry.

BUSUKE NOJIRI, Rigakushi.

Civil Engineering.

TEIJI NOBUTANI, Rigakushi.

Meteorological Observer.

MATSUJIRO NISHI, Rigakushi.

Geology.

AYATO TAGA.

Drawing.

TOKUSABURO KIRIYAMA, Rigakushi.

Meteorological Observer.

KENJIRO OTA, Rigakushi.

Chemistry.

JUN-KOSHI.

NAIBU KANDA.

Latin.

KANICHIRO MIWA, Rigakushi.

Mathematics.

JUN-JOKIOJU.

CHIUJIRO SASAKI, Rigakushi.
Zoology.

DEPARTMENT OF LITERATURE.

KIOJU.

HENRY T. TERRY, B. A., Counsellor at Law.
Public International Law.

WILLIAM A. HOUGHTON, B. A.
English Literature.

MASAKAZU TOYAMA.
Philosophy, History, and English.

ERNEST F. FENOLLOSA, B. A.
Philosophy, Political Economy, and Logic.

IWAO IWASA, Hütten Ingenieur.
Germrn.

MASANAO NAKAMURA.
Chinese Literature and Chinese Philosophy.

KI MISHIMA.
Chinese Literature.

TOKAI NAGAMATSU.
Physiology.

SHIGEMICHI SHIMADA.
Chinese Literature and Chinese Philosophy.

NOBUSHIGE HOZUMI.
Jurisprudence and Encyclopedia of Laws.

KIYONORI KONAKAMURA.
Ancient and Modern Japanese Law.

KOSHI.

TANZAN HARA.

Hindoo Philosophy.

KAKUJU YOSHITANI.

Hindoo Philosophy.

INEJIRO TAJIRI, B. A.

Political Economy.

SEIGO KURIZUKA, Licencié en droit à la faculté de droit de Paris.

Political Science.

KIICHI KOSUGE.

Japanese Finance.

KOREYOSHI SAIKI.

Japanese Finance.

MASAKOTO KIMURA.

Japanese Literature.

AKIRA SHINOBU.

Chinese Literature.

YEIICHI SHIBUSAWA.

Japanese Finance.

JOKIOJU.

TAKESATO IIDA.

Japanese Literature, and Ancient and Modern Japanese Law.

JUN-KOSHI.

TADAMICHI NIWA.

Chinese Literature.

KIYOOMI CHIKAMI, Bungakushi.

Logic.

INAGI TANAKA, Bungakushi.

Japanese Literature.

KIYOOMI OZAWA.
Japanese Literature.
TAKESHI FURUYA.
Chinese Literature.
SEIICHI SUYEOKA, Bungakushi.
History.

KIOMUKA.

JUN TOMZIUKA, 3rd Secretary.
KOICHI INOUYE, 6th Secretary.
YOSHINORI SHIMADA, 7th Secretary.
ICHITARO TSUBOTA, 8th Secretary.

TOSHOKA.

SEIICHI SUYEOKA, Bungakushi, Head officer.
YASUMITSU IKEDA, 4th Secretary.
MASUNARI OHARA, 8th Secretary.
HIKOICHI NOMOTO, 8th Secretary.
TADASU NAKAMATA, 9th Secretary.

KIHINKA.

KIYOKAGE SEKIYA, Head officer.
SHIUZO ONO, 8th Secretary.
CHIKANAGA MIHARA, 9th Secretary.

KISHUKUKA.

KATSUMI TSUKAMOTO, 8th Secretary.
HAJIMU NOMURA, 8th Secretary.
MASANORI YOSHIDA, 9th Secretary.
(List of other officers omitted).

STUDENTS.*

DEPARTMENT OF LAW.

FOURTH YEAR STUDENTS.

Katsutaka Sunagawa.
Yasushi Hijikata.
Chikamoto Miwa
Kanekichi Okayama.
Asska Watanabe.
Kamenosuke Misaki.
Kinosuke Yamada.
Moroyoshi Ihara.

THIRD YEAR STUDENTS.

Junrokuro Shiba.
Teiji Ito.
Komataro Kosaka.
Naohiko Seki.
Shiro Fujita.
Tokutaro Ono.
Setsu Kawamata.
Seitaro Katayama.
Toichi Nishio.
Sukeyuki Hiyama.
Katsu Kitadai.
Iroku Isobe.
Takanori Fujikawa.

SECOND YEAR STUDENTS.

Makoto Yegi.
Zoji Shibuya.
Hayakichi Sato.
Yoshito Okuda.
Yoshitaro Arakawa.
Toshikazu Ishiwata.

* Order of the names is arranged according to the average standing at the first term-examination.

FIRST YEAR STUDENTS.

Heitaro Tsubono.
Tsuruo Morioka.
Genji Kawagoye.
Ikunoshin Matsuoka.
Junsaku Hirabe.
Kotaro Ogawa.
Seigo Nakano.
Seijiro Shio.
Suteroku Takahashi.
Yoshio Oda.
Kazutomo Takahashi.
Rainosuke Sawasaki.
Tamotsu Ota.
Harumitsu Miyabara.

DEPARTMENT OF SCIENCE.

CHEMISTRY.

FOURTH YEAR STUDENTS.

Toyokitsu Uyeda.
Harumi Sawabe.
Yataro Ishikawa.
Kakusaburo Tachibana.

THIRD YEAR STUDENTS.

Kusushi Iwabuchi.
Tozo Bannai.
Yasukichi Oishi.
Sagoro Sugitani.
Tetsutaro Yoshioka.
Kanichiro Koide.
Terutoshi Tokoroya.
Shintaro Adachi.

SECOND YEAR STUDENTS.

Yetsunosuke Hori.
Bunjiro Masushima.
Itaru Ando.
Katsujiro Takashima.
Yeinoshin Yoshitake.
Ishitaro Yokoji.
Kinichiro Ichimo.

ELECTIVE STUDENT IN CHEMISTORY.

Tota Yasuda, Rigakushi.

MATHEMATICS.

THIRD YEAR STUDENT.

Toyoo Takahashi.

PHYSICS.

FOURTH YEAR STUDENTS.

Rikitaro Fujisawa. Shohei Tanaka.
Aikitsu Tanakadate.

THIRD YEAR STUDENTS.

Sukeyasu Sakai. Rakusaburo Senda.
Sakichiro Kato.

SECOND YEAR STUDENT.

Yeinosuke Yamaguchi.

ASTRONOMY.

FOURTH YEAR STUDENT.

Aritaka Kumamoto.

BIOLOGY.

FOURTH YEAR STUDENT.

Chiyomatsu Ishikawa.

SECOND YEAR STUDENTS.

Gempachi Mitsukuri. Kionosuke Kumazawa.

ENGINEERING.

FOURTH YEAR STUDENTS.

Kiozo Kumakura. Teizaburo Nakahara.
Katsura Nagasaki. Takeshi Miura.

THIRD YEAR STUDENTS.

Saku Yokoi. Mitsuo Tanabe.
Yeiji Nakashima. Gompei Oya.
Sentaro Kondo. Yoshishige Noguchi.

SECOND YEAR STUDENT.

Genjiro Yamazaki.

GEOLOGY.

FOURTH YEAR STUDENTS.

Matajiro Yokoyama. Kenzo Nakashima.
Akira Yamada.

THIRD YEAR STUDENTS.

Toshi Suzuki. Yasushi Kikuchi.

SECCND YEAR STUDENTS.

Sojiro Miura. Tsunahiro Tada.

MINING AND METALLURGY.

FOURTH YEAR STUDENTS.

Shinji Harada. Kageyoshi Noro.
Yoshinori Wada. Yoshitada Oki.
Osamu Yamagata.

THIRD YEAR STUDENTS.

Takeichiro Matsuda. Kasaku Nakano.
Teisho Nagata.

SECOND YEAR STUDENTS.

Naoki Ishikawa. Naoya Yamada.

FIRST YEAR STUDENTS—ALL COURSES.

Tokitoshi Hojo. Kiyoshi Sawai.
Kotaro Nakashima. Shintaro Hayasaki.
Hidehisa Shimoyama. Hakujiro Kobayashi.
Tachima Tanimura. Masumi Saneyoshi.
Kiyotoshi Makino. Yoshichika Wada.
Mitsukuni Murase. Matsujiro Ohira.
Shogoro Tsuboi. Kenji Miyamaye.

Naomaro Oyatsu.
Genjiro Matsui.
Nobutoshi Naritomi.
Yoshinori Aoki.
Takeshi Doki.
Shigetaka Kitajima.
Chiyokichi Suzuki.
Tetsutaro Imai.
Kiutaro Hayashi.
Megumi Sugimoto.
Kotaro Saida.
Buntaro Yamada.
Tadayuki Honda.
Senichi Otsuka.
Minotaro Tajima.
Taminosuke Kambe.

ELECTIVE STUDENT IN CHEMISTRY.

Kumazo Tsuboi, Bungakushi.

DEPARTMENT OF LITERATURE.

PHILOSOPHY.

FOURTH YEAR STUDENT.

Nagao Ariga.

ELECTIVE STUDENT IN PHILOSOPHY.

Harugoro Kano, Bungakushi.

THIRED YEAR STUDENT.

Yujiro Miyake.

POLITICAL SCIENCE AND POLITICAL ECONOMY.

FOURTH YEAR STUDENTS.

Tameyuki Amano.
Ichiro Yamada.
Sanaye Takata.

THIRD YEAR STUDENTS.

Hassoku Hozumi.
Takejiro Kimura.
Sadakichi Tsuruhara.
Teishichi Nakahara.
Tadatake Ogawa.
Suketo Sugiye.
Seitaro Umewaka.
Tomonosuke Ogiwara.
Yuzo Tsubouchi.
Reikichiro Tsutsumi.
Kamejiro Mayekawa.

SECOND YEAR STUDENTS.

Shukuro Hiranuma.
Kinshiro Tsuchiko.
Tsunejiro Nakagawa.
Kenjiro Hamada.
Hisakazu Soyeda.
Yeizaburo Homma.
Yoshiro Sakatani.
Yuji Fujiyama.
Kinya Kume.
Hidero Kasuga.
Akikado Kato.
Gompei Harakawa.

FIRST YEAR STUDENTS IN PHILOSOPHY AND POLITICAL SCIENCE &c.

Unto Kurokawa.
Nobu Kanai.
Yujiro Takemura.
Michiakira Kono.
Kojiuro Nagasaki.
Yenrio Inouye.
Tsunekuni Mihara.

JAPANESE AND CHINESE LITERATURE.

SECOND YEAR STUDENT.

Ichiro Tanahashi.

FIRST YEAR STUDENT.

Chokuon Miyake.

GRADUATES.

HOGAKUSHI.

	Graduated
Tetsujiro Nishikawa	2538 (1878)
Takasaburo Fujita	,, ,,
Kinichi Kawakami	,, ,,
Shigeaki Hatakeyama	,, ,,
Chinkichi Nomura	,, ,,
Masahisa Motoyama	,, ,,
Rokuichiro Masujima	2539 (1879)
Kenzaburo Ohara	,, ,,
Masaichiro Oyagi	,, ,,
Kazumasa Takahashi	,, ,,
Hakaru Isono	,, ,,
Genzo Akiyama	,, ,,
Yutaro Yamashita	,, ,,
Michinari Suyenobu	,, ,,
Tsunenori Miyake	,, ,,
Michisaburo Miyazaki	2540 (1880)
Hajime Motoda	,, ,,
Saburo Murayama	,, ,,
Kinzaburo Ono	,, ,,
Takanosuke Iriye	,, ,,
Takaaki Kato	2541 (1881)
Masanori Akiyama	,, ,,
Masamichi Aikawa	,, ,,

Gentaro Okada 2541 (1881)
Teiichiro Matsuno..... ,, ,,
Takesaburo Yu ..... ,, ,,
Mitsuyoshi Suzuki..... ,, ,,
Sakichi Sakaguchi ..... ,, ,,
Sansei Uchida ..... ,, ,,

RIGAKUSHI.

CHEMISTRY.

Rokuro Takasu 2537 (1877)
Mitsuru Kuhara ..... ,, ,,
Michimasa Miyazaki..... ,, ,,
Tokusaburo Isono..... 2538 (1878)
Jintaro Takayama ..... ,, ,,
Shinrokuro Ito ..... ,, ,,
Sadamu Ishimatsu..... ,, ,,
Toyokichi Takamatsu..... ,, ,,
Riosaku Fukuda..... ,, ,,
Iwata Nakazawa 2539 (1879)
Toyota Ishido ..... ,, ,,
Mitsuzo Hida ..... ,, ,,
Kenjiro Ota ..... ,, ,,
Yeijiro Watanabe ..... ,, ,,
Yataro Kitamura ..... ,, ,,
Yoshimasa Koga 2540 (1880)
Hikorokuro Yoshida..... ,, ,,
Iwao Ishikawa ..... ,, ,,
Monoshiro Moriya ..... ,, ,,

Yuzuru Watanabe ..... ,, ,,
Osamu Matsumoto ..... ,, ,,
Osamu Hisata..... 2541 (1881)
Seizo Imai .... ,, ,,
Tsuneshichiro Kato..... ,, ,,
Gentaro Takahashi ..... ,, ,,

BIOLOGY.

Isao Iijima..... 2541 (1881)
Tomotaro Iwakawa ..... ,, ,,
Chiujiro Sasaki ..... ,, ,,

MECHANICAL ENGINEERING.

Teiichi Sakata 2540 (1881)
Tomokichi Yoshida 2541 (1881)
Riusaku Kuri..... ,, ,,

CIVIL ENGINEERING.

Isoji Ishiguro..... 2538 (1878)
Mitsugi Sengoku ..... ,, ,,
Zentaro Mita..... ,, ,,
Shunji Omori 2539 (1879)
Kano Tachibana ..... ,, ,,
Kiyozaburo Futami ..... ,, ,,
Wataru Usui..... ,, ,,
Busuke Nojiri. ..... ,, ,,
Yasuto Koshiba..... 2540 (1880)
Yoshitsugu Kurata ..... ,, ,,
Tanenobu Oka..... ,, ,,
Benjiro Kusakabe..... ,, ,,
Motogoro Aoki ..... ,, ,,

Hiide Koshizuka	,,	,,
Naoji Shiraishi	2541	(1881)
Riutaro Namura	,,	,,
Riota Hara	,,	,,
Sanichi Shimomura	,,	,,
Tetsuo Tsuchida	,,	,,
Ninao Ishida	,,	,,

MINING AND METALLURGY.

Wataru Watanabe	2539	(1879)
Shachio Kawano	,,	,,
Ichizo Okada	,,	,,
Rentaro Hotta	2541	(1881)

GEOLOGY.

Bunjiro koto	2539	(1879)
Tadatsugu Kochibe	2540	(1880)
Denkichi Yamashita	,,	,,
Matsujiro Nishi	,,	,,
Takao Fujitani	2541	(1881)

PHYSICS (FRENCH).

Hisashi Terao	2538	(1878)
Yoshitaka Sembon	,,	,,
Teiji Nobutani	,,	,,
Kiyoshi Nakamura	,,	,,
Fusaki Sakurai	,,	,,
Masashi Namba	2539	(1879)
Kiyoo Nakamura	,,	,,

Umekichi Yatabe	2539	(1879)
Yuji Wada	,,	,,
Susumu Samejima	,,	,,
Munenori Takanose	,,	,,
Shiuye Toyota	,,	,,
Kanichiro Miwa	2540	(1880)
Mamori Mimori	,,	,,
Tokusaburo Kiriyama	,,	,,
Jimmatsu Shioda	,,	,,
Unari Kobayashi	,,	,,
Tadamoto Sawano	,,	,,
Teizo Namura	,,	,,
Tota Yasuda	,,	,,

BUNGAKUSHI.

PHILOSOPHY, POLITICAL SCIENCE AND POLITICAL ECONOMY, AND JAPANESE AND CHINESE LITERATURE.

Kenzo Wadagaki *c.a.*	2540	(1880)
Tetsujiro Inouye *a.b.*	,,	,,
Shinsaku Kodera *a.b.*	,,	,,
Kiyomi Chikami *a.b.*	,,	,,
Sadanaga Koba *b.c.*	,,	,,
Keizo Nakakuma *b.c.*	,,	,,

a. Graduates of Philosophy.
b. ,, ,, Political Science.
c. ,, ,, Political Economy.
d. ,, ,, Japanese and Chinese Literature.

Kakuzo Okakura *b.c.*	2540	(1880)
Takasuye Fukutomi *c.a.*	,,	,,
Seiichi Suyeoka *c.a.*	2541	(1881)
Kumazo Tsuboi *b.c.*	,,	,,
Keiroku Tsuzuki *b.c.*	,,	,,
Kojiro Tatsumi *a.b.*	,,	,,
Harugoro Kano *b.c.*	,,	,,
Inagi Tanaka *d.*	,,	,,

STUDENTS SENT ABROAD.

TO ENGLAND.

2539* (1879).

Kinichi Kawakami, Hogakushi.
Toyokichi Takamatsu, Rigakushi.
Isoji Ishiguro, Rigakushi.

2540 (1880).

Kenzo Wadagaki, Bungakushi.

2542 (1882).

Riosaku Kuri, Rigakushi.

TO FRANCE.

2539 (1879).

Hisashi Terao, Rigakushi.

2540 (1880).

Masashi Namba, Rigakushi.

* Year of sending.

TO GERMANY.

2540 (1880).

Bunjiro Koto, Rigakushi.

2542 (1882).

Isao Iijima, Rigakushi.

Keiroku Tsuzuki, Bungakushi.

SUMMARY OF STUDENTS AND GRADUATES.

DEPARTMENT OF LAW.

Law	41

DEPARTMENT OF SCIENCE.

Chemistry	19
Elective Students	2
Mathematics	1
Physics	7
Astronomy	1
Biology	3
Engineering	11
Geology	7
Mining and Metallurgy	10
First Year Science—All Courses	30
	91

DEPARTMENT OF LITERATURE.

Philosophy	2
Elective Student	1
Political Science and Political Economy	26
Philosophy, and Political Science and Political Economy	7
Japanese and Chinese Literature	2
	38

Total	170

GRADUATES.

Hogakushi	29
Rigakushi	80
Bungakushi	14
Students sent abroad	10
	133

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